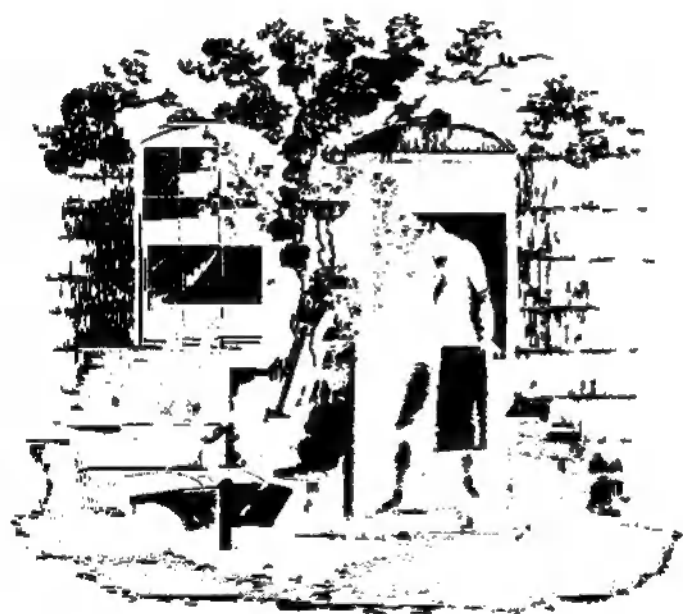


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THE
Life and Writings
OF
BENJAMIN FRANKLIN.



PHILADELPHIA

Published by W. C. Smith & Co.

MEMOIRS
OF
BENJAMIN FRANKLIN.

WRITTEN BY HIMSELF,
AND CONTINUED BY HIS GRANDSON AND OTHERS.

**HIS SOCIAL EPISTOLARY CORRESPONDENCE, PHILOSOPHICAL, POLITICAL,
AND MORAL LETTERS AND ESSAYS,**

**DIPLOMATIC TRANSACTIONS AS AGENT AT LONDON AND MINISTER
PLENIPOTENTIARY AT VERSAILLES.**

AUGMENTED BY MUCH MATTER NOT CONTAINED IN ANY FORMER EDITION

POSTLIMINIOUS PREFACE.

IN TWO VOLUMES.

VOL. II.

PHILADELPHIA:
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REPORT

OF THE COMMITTEE OF GRIEVANCES OF THE ASSEMBLY OF PENNSYLVANIA.
FEBRUARY 22, 1775.

In obedience to the order of the house, we have drawn up the heads of the most important aggrievances that occur to us, which the people of this province with great difficulty labour under; the many infractions of the constitution (in manifest violation of the royal grant, the proprietary charter, the laws of this province, and of the laws, usages, and customs of our mother-country) and other matters; which we apprehend call aloud for redress. They are as follow:

First—By the royal charter (which has ever been, ought to be, and truly is the principal and invariable fundamental of this constitution) king Charles the Second did give and grant unto William Penn, his heirs, and assigns, the province of Pennsylvania; and also to him and his heirs and his or their deputies or lieutenants, free, full, and absolute power, for the good and happy government thereof, to make and enact any laws, according to their best discretion; by and with the advice, assent, and approbation of the freemen of the said country, or of their delegates or deputies; for the raising of money, or any other end appertaining to the public state, peace, or safety of the said country. By the words of this grant, it is evident, that full powers are granted to the deputies and lieutenants of William Penn and his heirs to concur with the people in framing laws for their protection and the safety of the province, according to their best discretion; independent of any instructions or directions they should receive from their principals. And it is equally obvious to your committee, that the people of this province and their representatives were interested in this royal grant; and by virtue thereof, have an original right of legislation inherent in them; which neither the proprietors nor any other person whatsoever can divest them of, restrain, or abridge, without manifestly violating and destroying the letter, spirit, and design of this grant.

Nevertheless we unfortunately find, that the proprietaries of this province, regardless of this sacred fundamental of our rights and liberties, have so abridged and restricted their late and present governor's discretion in matters of legislation, by their illegal, impracticable, and unconstitutional instructions and prohibitions; that no bill for granting aids and supplies to our most gracious sovereign (be it ever so reasonable, expedient, and necessary for the defence of this his majesty's colony, and safety of his people) unless it be agreeable thereto, can meet with his approbation: by means whereof the many considerable sums of money which have been offered for those purposes, by the assemblies of this province (ever anxious to maintain his honour and rights), have been rejected: to the great encouragement of his majesty's enemies, and the imminent danger of the loss of this colony.

Secondly—The representatives of the people, in general assembly met, by virtue of the said royal grant, and the charter of privileges granted by the said William Penn, and a law of this province, have right to, and ought to enjoy all the powers and privileges of an assembly, according to the rights of the free-born subjects of England, and as is usual in any of the plantations in America: [also] it is an indubitable and now an uncontested right of the commons of England, to grant aids and supplies to his majesty in any manner they think most easy to themselves and the people; and they [also] are the sole judges of the measure, manner, and time of granting and raising the same.

Nevertheless the proprietaries of this province, in contempt of the said royal grant, proprietary charter, and law of their colony, designing to subvert the fundamentals of this constitution, to deprive the assembly and people of their rights and privileges, and to assume an arbitrary and tyrannical power over the liberties and properties of his majesty's liege subjects, have so restrained the governors by the despotic instructions (which are not to be varied from, and are particularly directory in the framing and passing of money bills and supplies to his majesty, as to the mode, measure, and time), that it is impossible for the assembly, should they lose all sense of their most essential rights, and comply with those instructions, to grant sufficient aids for the defence of this his majesty's province from the common enemy.

Thirdly—In pursuance of sundry acts of general assembly, approved of by the crown, [and] a natural right inherent in every man antecedent to all laws, the assemblies of this province have had the power of disposing of the public moneys, that have been raised for the encouragement of trade and support of government, by the interest money arising by the loan of the bills of credit and the excise. No part of these moneys was ever paid by the proprietaries, or ever raised on their estates; and therefore they can have no pretence of right to a voice in the disposition of them. They have ever been applied with prudent frugality to the honour and advantage of the public, and the king's immediate service, to the general approbation of the people: the credit of the government has been preserved, and the debts of the public punctually discharged. In short, no inconveniences but great and many advantages have accrued, from the assembly's prudent care and management of these funds.

INTRODUCTION

To _____ variety of purposes by a plain principles in the characteristics of nature As the _____ affected _____ the understanding objects a distance strike _____ according to their dimensions or _____ quantity of light thrown upon them, near according to their novelty or familiarity, _____ they are in motion or at rest It is the same with actions A battle is _____ — a hero all glare, while such images are before us we can _____ to nothing else Solon and Lycurgus would make _____ figure in _____ times with the king of Persia and _____ at present lost in the _____ tary or rumble _____ continent near us in which it must be confessed _____ deeply interested _____ have _____ throw _____ glance towards _____ where _____ at stake and where if anywhere _____ account must be made up at last

_____ love to tire more than to reflect and to be indolently amused _____ lecture rather than combat the smallest trespass on our patience by warring a painful tedious maze which would pay us _____ nothing but knowledge

But then as there are some eyes which can find nothing marvellous but what is marvellously great so there _____ others which are equally disposed to marvel _____ what _____ marvellously little and who can derive _____ much entertainment from their microscope in examining a taste as Dr _____ in retreating the geography of the _____ sea-sawing _____ tail of _____ comet

Let _____ write _____ an excuse for the author of these sheets if he needs any for bestowing them _____ transactions of a colony till of late hardly mentioned in _____ annals _____ point of establishment one of the last upon the British list, and in point of rank one of the most subordinate as being _____ only subject _____ with the rest to the _____ but also to the claims of a proprietary who _____ does them honour enough _____ governing them by deputy (consequently so much farther) removed from the royal eye and so much the more exposed _____ the pressure of self interested instructions

Considerable however _____ most of them for happy _____ of _____ fertility of soil produce it valuable commodities number of inhabitants — sup- amount of exportations latitude of rights and privileges and every other requisite for the being and well being of society and more considerable than any of them all for the celerity of its growth unobscured by _____ human _____ lip but the vigour and _____ of _____ own excellent

A father and his family the latter must be interested and affection the former to be revered _____ wisdom of his _____ and the indulgent _____ of his authority was the form it was at first presented in Those who _____ only submission of _____ it here and _____ returned with _____ evil report of the land numbers followed _____ partook of the harvest they found the community

* This public _____ was made in London during the war that began _____ 1757 and the _____ who also adapted himself _____ his situation and discernment enough to perceive that a work on a subject so important would lose none of its moderateness by being published in a remote colony The introduction _____ is a model of vivid style and sound wisdom _____ at London _____ with _____ detail of a _____ property of the _____ government

_____ were the same equal face, nobody aspired nobody was oppressed industry was sure of profit, knowledge of cause and _____

An amazing landlord strongly disposed to _____ vert free tenants _____ abject vassals _____ what he did not _____ countenanced and abetted by a few desperate and designing dependants _____ the one side, and _____ the other all who have sense enough to know their rights and spirit enough to defend them combined _____ against the _____ landlord and his encroachments _____ the form it has since assumed

And surely to a nation born to liberty like this bound to leave _____ unimpaired _____ they received it from their fathers in perpetuity to their heirs _____ interested _____ the conservation of it in every part of the British empire _____ part ideas of such a contest _____ be wholly indiffer-

On the contrary it _____ reasonable _____ the first workings of power against liberty and the natural efforts of unbiased men to secure _____ values against the _____ approaches of oppression must have a captivating power _____ of stability and discernment amongst _____

Liberty it _____ thrives best in the woods America's best cultivators what Germany brought forth And were it not for certain ugly companions _____ we should be oppressed the pleasure arising from such a research would be without alloy

In the feuds of Florence recorded by Machiavel we find more to lament and less to praise than we believe the first citizens of the ancient republics had such pretensions to consideration though so highly celebrated in ancient story And as to ourselves we need no longer have recourse _____ to the late glorious stand of the French parliaments to excite _____ emulation

It is a known _____ among farmers to change their corn from _____ to season for the sale _____ filling the bushel and in case the wisdom of the age should condescend to make the like experiment in another shape from hence _____ may learn whether _____ repair for the proper species

It is not however to be presumed that such as have long been accustomed _____ consider the colonies in general as only to _____ dependencies on the council board the _____ of trade and the board of customs or as a hot bed for casual jobs and other pecuniary encumbrances and _____ bound _____ effectually by _____ by laws can _____ prevailed upon to consider _____ patriot rank with any degree of respect

Reason on the contrary _____ be the lot of him who usurps it in the power _____ the pen to set _____ lustre upon them and indignation theirs for daring to _____ the independency interwoven in their constitution which now it seems to become an improper ingredient and therefore to be excluded _____

But how contemptible _____ these gentlemen may talk of the colonies how cheap _____ they _____ their assemblies _____ how insignificant the planters and traders who compose them truth will be truth and principle principle notwithstanding

Courage wisdom integrity and honour are not to be measured by the sphere assigned them to act in but by the trials they undergo and the vouches they furnish and if so much needed need neither robes nor titles to set them off

FRANKLIN'S WORKS.

AN HISTORICAL REVIEW

OF THE

CONSTITUTION AND GOVERNMENT

OF

PENNSYLVANIA.

THE constitution of Pennsylvania is derived, first, from the birthright of every British subject; secondly, from the royal charter granted to William Penn by king Charles II., and thirdly, from the charter of privileges granted by the said William Penn as proprietor and governor, in virtue of the former, to the freemen of the said province and territories; being the last of four at several periods issued by the authority.

The birthright of every British subject is, to have a property of his own, in his estate, person, and reputation; subject only to laws enacted by his own concurrence, either in person or by his representatives: and which birthright accompanies him wheresoever he wanders or rests; so long as he is within the pale of the British dominions, and is true to his allegiance.

The royal charter was granted to William Penn in the beginning of the year 1681. A most alarming period! The nation being in a strong ferment; and the court forming an arbitrary plan; which, under the countenance of a small standing army, they began a year to carry into execution, by cajoling corporations, forcing others by gunpowder, and surrender their charters: that by the abuse of law, disuse of parliaments, and the terror of power, the kingdom became in effect the prey of will and pleasure.

The charter governments of America had, before this, afforded a place of refuge to the persecuted and miserable; and, as if to enlarge the of liberty abroad, which had been so sacrilegiously contracted at home, Pennsylvania then was made a new asylum, where all who wished desired free might so for ever.

The of the grant expressed in the preamble was, the and services of admiral

Penn, and the commendable desire of his to enlarge the British empire, to promote such useful commodities might be of benefit to it, and to civilize the savage inhabitants.

In the third section, which constitutes the said William Penn the true and absolute proprietary of the said province, there is owing to the crown, of the faith and allegiance of the said William Penn, his heirs and assigns, and of all other proprietaries, tenants, and inhabitants of the said province, also of the sovereignty thereof.

The fourth, professing to repose special trust and confidence in the fidelity, wisdom, justice, and provident circumspection of the Penn, grants to him and his heirs, and to his and their deputies, free, full, and absolute power, for the good and happy government of the said country, to ordain, make, and enact, under his or their seals, to publish any laws whatsoever, for the raising of money for public uses of the said province, for any other end appertaining either unto the public state, peace, safety of the said country, or the private utility of particular persons, according to their best discretion; by and with the advice, assent, and approbation of the freemen of the said country, or the greater part of them, of their delegates and deputies, to be assembled in such and form, as to him and them shall seem best, and as often need shall require.

By the fifth, the said William Penn is empowered and authorized to erect courts of judicature, appoint judges, and administer justice in all forms, and carry all the laws so made as above, into execution, under the pains therein expressed; provided the said laws be to reason, and not repugnant contrary, (but as conveniently may be) agreeable to the laws and statutes and rights of England; with a saving the crown in

case of appeals; for this reason doubtless, that in any of injustice or oppression committed, the party injured might be of redress.

By the sixth, which presumes, that government of so great a country, sudden accidents might happen, which would require a remedy before the freeholders or their delegates could be assembled to the making of laws, said William Penn, and his heirs, by themselves their magistrates duly ordained, are empowered to make and constitute fit and wholesome ordinances, from time to time, as well for the preservation of peace, as for better government of the inhabitants, under the proviso as that above, regarding the laws, and as that the ordinances be not extended in any sort bind, change, take away the right or interest of any person persons, for or in their life, members, freehold, goods, or chattels.

And to end, that neither the William Penn or his heirs, other the planters, owners, inhabitants of the said province, may, by misconstruction of the power aforesaid, through inadvertency, design, depart from their faith and allegiance to the crown, the seventh section provides, that a transcript or duplicate of all laws, so made and published as aforesaid, shall within five years after the making thereof, be transmitted and delivered to the privy council for the time being; and if declared by the king in council, inconsistent with the sovereignty or lawful prerogative of the crown, or contrary to the allegiance due to the legal government of this realm, shall be adjudged void.

The said William Penn is also obliged to have an attorney, agent, to be his resident representative, known place in London, who is answerable to the crown for any misdemeanour committed, or wilful default neglect, committed by the said Penn against the laws of trade and navigation; and

defray the damages his majesty's courts ascertained; and in case of failure, the government be resumed and retained payment has been made; without any prejudice however any respect the landholders or inhabitants, who are not be affected or molested thereby.

His majesty, moreover, covenants and grants to and with the said William Penn, in the twentieth section, himself, his heirs and successors, no thereafter, to impose or levy any on the inhabitants any shape, unless the same be with the consent of the proprietary or chief governor, or assembly, or by act of parliament in England.

On pain of his highest displeasure, he also commands all his officers and ministers, that they do not presume any time to attempt any thing to the contrary of the premises, or

that they do in any sort withstand the same: and, on the contrary, enjoins them, to be all times aiding and assisting, as was fitting to the William Penn his heirs, and inhabitants and merchants of the province aforesaid, their servants, ministers, factors, and assigns, in the full and fruition of the benefit of the charter.

And in the place, a provision is made, by the king's special will, ordinance, and command, that, in any doubt question should thereafter perchance arise, concerning the true sense or meaning of any word, clause, contained therein, such interpretation should be made thereof and allowed in any of majesty's courts, as should be adjudged advantageous and favourable to the said William Penn, his heirs and assigns; provided always, that no interpretation be admitted thereof, by which the allegiance due to the crown may suffer any prejudice or diminution.

The whole consists of twenty-three titles; of which it is presumed, these are the material. They are penned with the appearance of candour and simplicity imaginable; so that if craft any thing to do with them, never was craft better hid. As is left as possible to future instructions, and no where is there to be found the shadow of a pretence, that such instructions should be laws. All is equally agreeable to law and the claims of the crown and the rights of subject; nor, indeed, would the grant have been valid if it had been otherwise. The words *legal government* words of great significance.—No command of the king's is a legal command, unless consonant to law, and authenticated by of his seals:—the forms of office in such providing, that nothing illegal be carried into execution; and the officer himself being responsible to the laws in yielding criminal obedience.

It would therefore be a waste of words to show, that the crown is limited in all acts and grants, by the fundamentals of the constitution; and that, as alienate any one limb joint of the state, neither, the other, can it establish any colony upon, or contract it within scale, than the subject is entitled to by the great charter of England.

But if it is remarkable, that such an instrument as this should be the growth of an arbitrary court, it is equally that the king's brother, James, duke of York, (afterwards the most unhappy of kings) was at the rebound, a party in it; for it seems, the right to that tract of land called the territories of Pennsylvania, was, by a prior grant, vested in him; and, in August, 1682, he signed by his deeds of feoffment to the said William Penn.

It may also be inferred, that the said Wil-

liam Penn had been as diligent in collecting a number of proper adventurers together, as in obtaining the necessary authorities from the crown: for in the interval between the charter and the grant, he made use of provisional powers given him by the section of the former, to the first deed of settlement under the title of "Certain conditions, or concessions, agreed upon by Wm. Penn, proprietary governor of Pennsylvania, and those who are adventurers and purchasers in the province."

This, however, only rules of settlement, and of trade with, and treatment of the Indians, &c. with the addition of some general injunctions for preserving of order and keeping the peace, agreeable to the customs, usages, and laws of England.

In the next year following, Mr. Penn printed and published a system of government, under the following title, to wit, "The frame of the government of the province of Pennsylvania in America: together with certain laws agreed upon in England, by the governor and divers freemen of the aforesaid province. To be farther explained and confirmed there by the first provincial council, if they see meet."

At the head of this frame, or system, is a short preliminary discourse, part of which serves to give a lively idea of Mr. Penn preaching in Gracechurch-street, than we derive from Raphael's Cartoon of Paul preaching at Athens: as a man of conscience he sets out; as a man of reason he proceeds; and as a man of the world he offers the most plausible conditions to all, to the end they might gain some.

The paragraphs of this discourse, the people of Pennsylvania ought to have for ever before their eyes: to wit, 1. "Any government is free to the people (whatever be the frame) where the laws rule and the people are a party to those laws: and more than this, tyranny, oligarchy, or confusion." 2. "To support power in government with the people, and secure the people from the abuse of power, that they may be free by their just obedience, and the magistrates honourable for their just administration, the great ends of all government."

This frame consisted of twenty-four articles, and savoured very strongly of Harrington and Oceana. In the governor and freemen of the province, in the form of a provincial council, (always in being and yet always changing,) and general assembly, the government was placed. By them conjunctively, all laws were to be made, all officers appointed, and all public affairs transacted. Seventy-two the number of the council was to consist of: they were to be chosen by the freemen; and, though the governor or his deputy was to be perpetual president, he had

but a treble vote. One third of them was, at the first, to be chosen for three years, one third for two years, and one third for one year; in such succession that there should be a succession of twenty-four new members, &c. The general assembly was at first to consist of the freemen, afterwards of two hundred, and was to exceed five hundred.

The laws agreed in England were in all forty; partly political, partly moral, and partly economical. They are of the nature of an original compact between the proprietary and the freemen, and such as reciprocally received and executed.

In the following year the action being from the mother country to the colony, the deportment of the legislator was less of the man of God now appeared, and more of the man of the world.

One point he already carried against the inclination of his followers: namely, the reservation of quit-rents, which they had demonstrated against as a burden in itself, and to the purchase-money, without precedent in any other colony: but he artfully distinguishing the two capacities of proprietary governor; and insinuating, that government must be supported with splendour and dignity, and that by this expedient they would be exempt from other taxes: the point took, and the point was carried.

To unite the subtlety of the serpent with the innocence of the dove is not so easily done as said. Having in this instance experienced the weight of his credit and the power of persuasion, he was landed, than he formed a double scheme for uniting the province with the territory, though it does not appear he properly authorized so to do, and to substitute another frame of government in lieu of the former, which having answered the great purpose of inducement here at home, for collecting of subjects, he was now inclined to render somewhat favourable to himself in point of government. Of much artifice we find him accused (by the provincial assembly of 1704, in a representation addressed to himself) in the whole course of this proceeding; whether justly or let the world determine.

They tell him, for example, in many words, "That by the minutes of the assembly and other papers, as well as living witnesses, that, soon after thy first arrival here, thou, having obtained the duke's grant for the three lower counties [the territory that is to say] prevailed with the people of the province to unite in legislation and government with them of the lower counties; and then by a subtle contrivance or artifice, deeper than the capacities of some could fathom, "

the circumstances of many could admit them time then to consider of, a way was found out to lay aside that, and introduce another charter, which thou completed in the year 1682.

At a place called Chester, in December, 1682, the freemen both of the province and territory convened; but those of the province having, by election, returned twelve persons to the council for each county, members of the provincial council, induced to accompany that council with significations and petitions by their sheriffs, &c. importing that because of the fewness of the people, their inability in estate, their unskillfulness in matters of government, their desire was, that the twelve so returned for each county, might serve both the provincial council and general assembly; that they say, three of each twelve for members of council, the remaining nine for assembly-men; with the powers and privileges granted by the charter or frame of government to the whole: and according to the significations and petitions of theirs, an act of settlement was drawn up and passed, in which, after the said charter or frame has been artfully mentioned as one of those *probationary* laws, which by the council and assembly might be altered at pleasure, the model of the said council and assembly reduced and admitted; the persons so turned are declared and enacted to be the legal council and assembly; the number of the said council is fixed to three persons out of each county for the time to come; the number of assembly-men for each is reduced to six; and, after a variety of further regulations, the said charter frame is solemnly recognised and accepted: as if with these alterations and amendments it were understood to be complete.

Thou art for uniting the province and the territory humbly brought, as it is therein specified, by the deputies of the said territory, was also passed the same and place; in virtue of which all the benefits and advantages before granted the provincials, were equally communicated to both; and both from that time were to be one people under the same government.

Of this act, however, the provincial assembly of 1704, in the representation of their proprietary before cited, complain in the terms following:

"And as the conveniency of the union of the province and lower counties, gainsay it, if the king had granted thee the government the duke had done the soil: but to our great grief and trouble, cannot that thou had any such grant; and if thou had, thou would not produce it, though often requested to do: therefore make it harder thou, who knew how precarious thy power was to govern the lower counties, should bring thy province into such a state

and condition, that whenever the crown had assumed that government, or the people there revolted, or refused to with us in legislation, as they often did, that then the said second charter should become impracticable, and the privileges thereby granted of no effect to the province, the representatives of the lower counties were equal in number with those of the province, and the charter required a greater number the province had, or by charter could elect for members of council assembly; and our numbers, by the charter, could be increased without the revolter's consent."

In the interval between the assembly at Chester, in December, 1682, and the next at Philadelphia in March, April, 1683, Mr. Penn, notwithstanding the act of settlement, furnished himself with another frame, in part conformable to the first, in part modified according to the said act; and in part essentially different from both: and concerning this again, the assembly of 1704, in their representation aforesaid, thus freely expostulate with the proprietary: to wit,

"The motives which upon record, inducing the people to accept of that second charter, chiefly two, viz. That the number of representatives would prove burdensome to the country: and the other was, in regard thou had but a feeble vote, the people, through their unskillfulness in the laws of trade and navigation, might sum laws over thy head repugnant thereto, which might occasion the forfeiture of the king's letters patent, by which this country was granted to thee; and wherein is a clause for purpose, which we find much relied upon, and frequently read or urged in assembly of that time; and security demanded by thee from the people account." "As to the motive, we know that the number of representatives might have been very well reduced without a charter: and to the laws of trade, we cannot that a people so fond of thyself for (their governor, and who much with thy eye in those affairs, should, against thy advice and cautions, make laws repugnant to those of trade, and so bring trouble and disappointment upon themselves, by being a of suspending thy administration; the influence whereof and hopes of thy continuance therein, induced them, as charitably conclude, to embark with thee in that great weighty affair, than the honour due to in stations, any sinister ends destructive to the constitution they acted by. Therefore, we see no just cause thou had to insist on security, or to have a negative bills to be passed into laws in general assemblies, since thou by the said charter (pursuant to authority and direction of the king's letters patent aforesaid) formed

blies, and, thereupon reserved but a *trifling* vote in the provincial council, which could not be more injurious to thee than the people, for the *above* said."

again, afterwards;

"Thus was the first charter laid aside, contrary to the tenor thereof, and true intent of the first adventurers; and the second charter introduced, *as* adopted by the general assembly held at Philadelphia, the first second month, 1682, where thou solemnly testified, what *was* in that charter solely intended by thee for the good and benefit of the freemen of the province, and prosecuted with much *in* thy spirit towards God at the time of its composition."

In less than three years after Mr. Penn's arrival in the province, and when it began to thrive, a dispute between lord Baltimore, proprietary of Maryland, and him, furnished him with a pretence to return to England; leaving the government to be administered by five commissioners of state, taken out of the provincial council, the remainder of that council, and the general assembly.

James II. was now on the throne: Mr. Penn was attached to him closely by obligations, if not by principles: that prince's impolitic plan of restoring the Roman ritual by universal toleration, seems to him been almost inspired by him: in the king's dispute with the fellows of Magdalen college, Mr. Penn was an active instrument in his majesty's behalf, not without injurious imputations to himself: and for years after the revolution, had the misfortune to lie under the suspicions and the frowns of the government.

His nursing-colony was yet in the cradle, while it thus deserted; consequently stood in need of expedience to facilitate its growth, and all preservatives against disorders.

Disorders it actually fell into, which still to be traced in the minutes of their assemblies: one More in particular, was first impeached by the assembly before the provincial council, of misdemeanour in ten several articles, and, in a letter to the proprietary, signed by John White, speaker, represented as an *aspiring and corrupt minister* of *the*

We find the assembly and provincial council variance about their respective powers and privileges; what extraordinary still, we find the proprietary, in 1698, requiring and enjoining his said commissioners to dissolve the frame of government by his late charter constituted; they not being woe to carry this point, we find, in December, 1698, a deputy-governor appointed, captain John Blackwell, who, a practised man, with endeavouring to sow dissensions among freemen, and by making such a display of

the proprietary power as might die the majority into proprietary measures.

Thus John White, the former speaker, who signed the letter from the assembly to Mr. Penn, concerning the misdemeanours of More, was no sooner returned for the county of Newcastle, than he was thrown into prison, and by violence wrested out of the hands of the assembly, after he had brought up Philadelphia by *habeas corpus*. The said governor also finding that the said assembly was not of the proprietary complexion, and that they disposed to open the session with a discussion of grievances, found pretences for several days to evade giving them audience, all either frivolous or groundless; and in the mean time, left no stone unturned to temper the council in his mind; and then by their concurrence, to make a suitable impression upon the assembly.

The assembly, however, only retained their firmness, but also took care to leave the following memorials of it in their minutes: to wit,

May 14. "That whereas this assembly have attended here for several days, and have several messengers to the governor and council, appointed to confer with the members of assembly according to charter: and whereas the messengers have given this house understand, that they were answered by the governor, that there was not a full council to receive them: and, whereas this house being well assured, that there is, and has been, for two days last past, a competent number of members in town, ready to yield their attendance, yet several of the said members have not been hitherto permitted to be in council, to the great detriment and grievance of the country: therefore, we desire, that these grievances may be speedily redressed, liberties inviolably preserved."

May 15. "That a person who is commissioned or appointed by the governor to receive the governor's fines, forfeitures, or revenues whatsoever, shall sit in judgment in any court of judicature within this government, in any matter or cause whatsoever, where a fine or forfeiture or may be to the governor."

On the last of these two days, and previous to the last of these votes, the governor at length favoured them with the meeting desired; and thereat made a speech, in which are the following remarkable paragraphs: viz.

I suppose you have been formerly acquainted with the and of the proprietary's absenting himself so long from you as till the late revolutions in England; he hath frequently evidenced his strong desire above all things to be restored to you: hath hindered of late, have from the divers reports of things transacted in England, which require should wait for their be-

rendered more certain; and, in the mean time, strive in our prayers, that the Lord, who governs this universe, will do it in his wisdom good will, towards all his suffering people, ourselves in particular.

"I suppose, gentlemen, you expected some bills should have been sent down to you from the provincial council, for your consideration, before your coming up and passing them into laws at this meeting. Divers reasons might be why none were; I shall acquaint you with some of them viz.

"1. The honourable proprietary, for reasons known to himself, hath given positive directions for letting all the laws drop or fall, except the *fundamentals*, and afterwards calling together the legislative authority, to pass such of them, or others, as they should see fit for the future; which is my full intention to do.

"2. The honourable proprietary, being by his patent from the king, authorized by himself, his heirs, &c. with consent of the freemen, to make, and under his seal to publish, necessary laws for the good of the people; which had never been done with all requisite circumstances, whilst himself was here: without which, I must doubt whether what were passed, or should hereafter be passed, have that due sanction or establishment which laws require; and finding the great seal, under which they should pass, was not to be had, the keeper thereof refusing to allow the use of it in any cases by my direction, I therefore looked upon it as labour in vain to attempt it.

"3. The present posture and alteration of affairs in England; the uncertainty touching the condition of the proprietary himself, and his power; and the fears of what dangers might ensue as well to him as ourselves, in passing and confirming laws of such a nature, as would have been approved of in this conjuncture of affairs, forbid it.

"4. The animosities and dissensions which were here amongst you before I came, and have been lately revived amongst the members of the provincial council, by the endeavours of some, as to their proceedings in that service, hindered their agreement in council, as to doing any thing; inasmuch as I was constrained, for love and peace sake, upon the other foregoing considerations, to dismiss them from further attendance on that account.

"5. An expedient occurred to me, of less danger to us all: viz. that I, being by my commission, as aforesaid, referred for my rule and instructions to the laws then in being, and which had been, as well by the proprietary as people, approved and owned as such, whilst he was amongst you here, and observing that he had reserved the confirmation and disannulling of what laws should be made in his absence to himself; and if any were or

should be proposed, they could not take effect among us as laws, till his pleasure should be therein declared; I came to a resolution with myself, of observing the same course of my government, as many rules and instructions given by my master, as I should find and judge not contrary to the laws of England, in supplying the defect in your laws by the laws of England, which I believe will be most grateful to the superiors in England, especially at this time, and will be so among ourselves, there being no other way occurring to my understanding whereby you may receive the benefit of them: and in this purpose I am ready, unless you should otherwise advise, until by better information out of England, shall be led out of these state meanders."

The assembly answered, among other things, as follows: viz.

"We heartily wish that thy design in coming hither, with all imaginable respect to our governor and inhabitants here, may be accordingly with suitable measures; and we cannot but have that opinion of our worthy governor's tender regard to the people here, that as he will justify no unbecoming behaviour in us as his representative, so we hope he will vindicate no unlawful or rigid procedure against us. As to our governor's absence, we are very sensible that we may be to his disappointment, so it is extremely to our prejudice. Were we in expectation of receiving bills from thee and the council as formerly; to the reason thou art pleased to give why we are sent, that the proprietary and governor hath given directions for letting all the laws drop or fall, we are credibly informed, that afterwards he will be well pleased they should stand; and all the laws made here since his departure, sent for his perusal, and some of them, to our knowledge, in the least declared void by him; neither do we conceive that he hath any objection to do.

"As to the establishment of laws, we expected we aimed at any higher sanction than was used in the governor's time; but in bills had been prepared and promulgated according to charter, and had passed by us into laws, and the great seal had been necessary and the law duly required to be applied to the said laws, and the keeper refused the same; then we might justly blame such refusal: but as the way thou mentions, that our proprietary governor authorized by himself, and with consent of the freemen, to make laws, and under his seal to publish them, and not in the granted way of the charter and act of settlement; as we do not desire, so our hopes are, that no laws of that make will be imposed upon us and had we laws at this time, as formerly, we question not but that they had been as inoffensive in the present conjuncture, as afore: and we

do conceive, that our laws here, not being declared ■ adjudged by the king under his privy seal to be void, do remain and stand in full force, according to ■ intent and meaning thereof.

"As ■ charge of animosities and dissensions amongst us before thy coming here, ■ is so general, that ■ can make no other ■ than that in ■ of government, our apprehensions ■ otherwise, the end of good government being answered, in that power was supported in ■ with the people, and the people ■ secured from the abuse of power; but for what thou mentions ■ have been renewed since amongst the members of council, ■ leave them to ■

"As to the expedient proposed, of thy governing this province and territories, by such of the laws ■ made before our proprietary and governor went hence, which thou shalt judge not contrary to the laws of England, ■ conceive no such expedient ■ be consistent with our constitution, without the concurrence of the council, according ■ such methods as have been heretofore used ■ legislature, and what ■ of government is otherwise, will be ungrateful and uncertain to us, for how far the laws of England are to ■ our rules, is declared by the king's letters patent.

"As to thy assuring us, thy just compliance with ■ in what we may reasonably desire, we take it kindly, and do desire that our members of council may be permitted to sit, according to ■ former request."

The governor finding himself thus steadily opposed, had ■ to another piece of practice, which was to prevail on certain members ■ withdraw themselves from the house: the house, on the other hand, voted this to be a treachery, and ■ prepared and presented the following request ■ the governor: viz.

"To the governor ■ council, sitting ■ Philadelphia, the twentieth day of the ■ month, ■

"■ the representatives of the freemen of Pennsylvania, and territories thereof, in ■ assembly met, being much disappointed in our expectation in not finding any bills prepared and promulgated by you for ■ further concurrence; ■ perceiving three members duly elected to serve in council (in whose wisdom and faithfulness ■ much confide) too long kept out; and ■ a member of ■ own, is treated with great rigor and severity in ■ time of assembly, and not allowed to be with us, though most of us have known him to have been serviceable therein these several years: ■ (being under a strait in these considerations) ■ request your tender regard of our grievances already presented, and of our answer presented to the governor in council, to ■ speech delivered ■ us there; and we

do desire, you do not ■ to dismiss us until we are received, ■ righted in our just complaints: and that we be not discouraged in charging before the provincial council, ■ persons or members whom we can with great probability make appear to be ill ministers and chief authors of the present arbitrariness ■ government; ■ who ■ unworthy as we conceive, ■ much consulted with, ■ to ■ chief magistrates.—What ■ purpose to do herein, shall be orderly, speedily, ■ within bounds."

■ does ■ appear ■ request ■ with any regard, ■ the proprietary interest ■ gained any ground in ■ assemblies held the two subsequent years: and in the year 1693, the king ■ queen assumed the government of the colony into their own hands: under what pretext, in virtue of what management, whether to gratify any displeasure ■ceived against ■ Penn. or ■ concert with him, ■ specified.

Colonel Fletcher ■ appointed governor of New York and Pennsylvania by one and the ■ commission, with equal powers ■ prerogatives in both provinces: as if there was no such thing ■ charter extant.

■ commission of his was, also, accompanied with a letter from the queen, ■ signed Nottingham, requiring him, as governor of Pennsylvania, ■ send such aid ■ assistance in men or otherwise, for the security of the province of New York against the attempts of the French and Indians, as the condition of the said colony would permit, as if the good will of the freemen was no longer worth mentioning.

To the assembly, however, this royal visitation thought ■ to communicate both his commission and her majesty's said letter. But then it was an assembly widely different from that appointed by their charter. ■ six members ■ each of the six counties, those of ■ and New Castle were reduced to four each, and the ■ to three; difference sixteen: and, ■ of grace, his excellency dispensed with the oaths of such as made it a point of conscience not to swear; and accepted ■ written profession and declaration of allegiance, before established in their stead.—Whether so strange ■ innovation ■ openly and specially complained of or not, the assembly had nevertheless the spirit ■ open ■ session with the following resolution, which passed ■ com. "That the laws of ■ province that ■ in force and practice before the arrival of this present governor, are still in force: and that the assembly have a right humbly to move the governor for a ■ continuation or confirmation of the same."

They also interwove ■ vote of theirs ■ their address to him, ■ unartfully ■duced ■ under the umbrage of an insinuation that ■ king and queen ■ thought fit to

appoint him to be their governor, because of the absence of their proprietary; but derived no benefit from it: for the governor bluntly told them, "he was sorry to find their desires grounded upon so great mistakes:" adding these emphatical expressions, "the absence of the proprietary is the least cause mentioned in their majesties' letters patent, for their justices asserting their undoubted right of governing their subjects in this province. There are reasons of greater moment: the neglects and miscarriages in late administration; the want of necessary defence against the enemy; the danger of [the province must be understood] being lost from the crown.—The constitution of their majesties' government and that of Mr. Penn's in direct opposition to the other: if you be so cautious in sticking for this, it is a plain demonstration, what words you please, that indeed you decline the other."

The assembly again, not to be wanting in duty to the king and queen, nor consistency to themselves, admitted their majesties' right of government to be indubitable; but would not allow themselves to be under any mistake in relation to the proprietary's absence. "And to the other reasons rendered, (said they in their remonstrances) for the superceding our proprietary's governancy, we apprehend [they] are founded on misinformations; for the courts of justice were open in all counties in this government, and justice duly executed from the highest crimes of treason and murder to determining the lowest difference about property, before the date or arrival of the governor's commission. Neither do we apprehend, that the province is in danger of being lost from the crown, although the government was in the hands of those whose principles are not for war; and we conceive, that the present governancy is no direct opposition (with respect to the king's government here in general) to our proprietary's William Penn, though the of thy authority at present supersedes that of our proprietary: nevertheless we readily see thee for our law-governor, saving to ourselves and those whom we represent, and their just rights and privileges."

Proceeding then to business, they voted a supply; but inclined to have their laws confirmed and their grievances redressed first: accordingly, they sent up a committee of ten, with the book of their laws to the governor his acceptance and ratification; and, after a long debate between him, assisted by five of council, and them, which was terminated on his side somewhat equivocally, he sent two of the council to assure the house, in his name, of confirmation of the laws (excepting one relating to shipwrecks) during the king's pleasure: for

they thought proper to return him a vote of thanks.

Nor is it much to be wondered at, that men taken by surprise, of the hands of their friend the proprietary, and exposed once to a wrestling-match with the crown, which they had never had any immediate transaction with before, should submit to hold their liberties by courtesy, rather than incur the risk of not holding them at all.

There was, however, a party among them, who having drawn up a petition of right, claiming and desiring the use and benefit of two hundred three laws therein specified, in respects consonant to their charter, of them annulled by the consequence of the power reserved to the sovereign; would hear of no abatement; and who had credit enough with assembly to obtain the sending a message to the governor, signifying, "that it is the sense and expectation of the assembly, that aggressions ought to be redressed before any bill of supply ought to pass."

And here their hearts failed them: for the governor having returned the bill sent up with the message which he had proposed amendments to, without any specifications of what those amendments were to be, with the following "that the assembly should have no account of the amendments of the bill, till they came in a full house before him give the last the laws;" further, "that he saw nothing would do but an annexion to New York." The menace carried the supply.

When the bill for granting it was however sent up, they not only up the roll of their laws with it, but also gave that part of their order the first place in their books.

They further "Resolved, that bills to the governor and council in order to be amended, ought to be returned to this house, to have their farther approbation upon such amendments, before they have their final assent to pass into laws."

And though they join with their committee of ten in the following paper, they suffered it to be entered in their books, by way of protest on behalf: to wit,

"We whose hereunto subscribed, representatives of the freemen of this province in assembly, do declare, it is the undoubted right of this house to receive back from the governor and council such bills as are up for their approbation or amendments: and that as necessary to know the amendments, debate as the body of the bills: and that the denial of that right destructive to the freedom of making laws. And we also declare, is the right of the assembly, that, before any supplies be presented for the last sanction of a

law, aggrievances ought to be redressed. Therefore, we, with *protestation* (saying our just rights in assembly) do declare, that the assent of such of us, as were for sending the bill this morning, was merely in consideration of the governor's speedy departure, that it did not be drawn into example or precedent for the future. *DAVID LARSEN, &c.*

concerning this whole period, find the freemen in assembly met for the year 1704, thus further expostulating with their proprietary, in the remonstrance already more than once referred to: to wit, "But what thou they (the five commissioners of state) effect in that behalf, was performed by colonel Fletcher in the year 1693, and then brought under the immediate direction of the crown, but with commands for him to go by the laws of the country: and although both the laws and charter had been long before transmitted thee, in order to get the late king's (James) approbation thereof, which insisted upon, and urged that they were laws till disapproved, yet thou having sent no account whether they approved or not, we forced to comply with him, and accept of such he pleased: but the charter he totally rejected."

Before he set out for New York, he however give a sanction to the laws required; and the next year's assembly proved notwithstanding to of the heaven with the last.

This assembly had been summoned by writs of the lieutenant-governor (Markham) and when met in a humour to state the grievances of the colony, found themselves precluded from acting by an order from Fletcher for their adjournment.

That, therefore, they might make the most of two days, they appointed a committee of grievances; and having received their report, agreed upon a the governor thereon, containing a complaint of their being sent for only to dismissed; asserting the right of the house to adjourn themselves; and among several other particulars, calling upon the governor to exert his power and authority, that determined by juries might not be unduly avoided by determinations in equity; that prevent arbitrary associations and the dissatisfaction they gave rise to, the justices of the peace might consult with, and be directed by the approbation of the several grand juries; and that the money raised by the assembly might be properly applied and properly accounted for to present at their next sitting.

Their right of adjourning themselves having been admitted, they accordingly towards the end of the next month.—Governor Fletcher by this time returned them in person; in the opening of speech, made them a handsome apology meeting be-

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fore; urging the necessity of a sudden journey to Albany, to endeavour at reclaiming the five nations of Indians, hitherto the allies of England, but now confederated with the governor of Canada against us; said he had brought the papers which passed at the conference along with him, for their satisfaction; that their Indians would be next forced into the same fatal confederacy; that he had seen with his eyes, a large tract of cultivated land about Albany, which had been abandoned by the inhabitants, rather through unkindness of their neighbours in refusing them assistance, than by the force of the enemy: prayed, that those who shut their eyes again a distant danger, might it at their own doors; extolled the two provinces of Jersey for the aids they had sent; concluded thus, "Gentlemen, I consider your principles, that you will not carry arms, nor levy money make war, though for your own defence; yet I hope you not refuse to feed hungry and cloth naked: my meaning is to supply those Indian nations with such necessaries as may influence them to a continuance of their friendship to these provinces. And now, gentlemen, if you will consider wherein I may be to you, according to the tenor of my commission, in redressing your grievances, if you have any, you shall find me ready to act by the rules of loyalty, with a true regard to liberty and property."

What appears to have been remarkable in this session, was a dispute between the governor and the house about a money bill: he alleging it was inconsistent with his to the bill, because they had named collectors therein, which seemed to derogate from the confidence reposed in the king's officer appointed to collect the last tax; and insisting upon some answer to the queen's letter, before he came to a final resolution concerning it; and they adhering to their bill, and desiring it might be rejected the first of those accounts; since they could not but their undoubted right to appropriate as well as raise money, agreeable to the privileges heretofore granted them, the practice in England, as well as in that and also in some of the neighbouring colonies; and that as to the receiver, when their appropriations had been answered, he was to dispose of the remainder the governor and council should order.

The governor still pressed for their her majesty, instead of giving them the satisfaction desired; and the said providing be a remonstrance, he dissolved them. the next sessions the accounts are extremely imperfect. We find, indeed, by a course of minutes, that a joint committee of the council, the requisition of the governor, had several meetings, consider of the queen's letter, the governor's demands there-

in his speech, and an act of settlement; that an answer to his speech was drawn up and sent to the governor, together with an act of settlement; that the messengers on their return, reported, they delivered both, and told the governor the council had no farther business to present; that after several adjournments, being in committee, and in high debate, their attendance was required by the governor in order to dissolve them.

That the demands made on them, in virtue of the queen's letter, was the subject of these debates, is more than probable: and if so, it will follow, that their want of will or power to comply with the demands, was the cause of their dissolution.

In the year 1698, being the next year following, Markham, once the proprietary's secretary and clerk of the council, and of late lieutenant-governor, summoned the next assembly, as lieutenant to the proprietary, reinstated in the government; and their meeting, recommended governor Fletcher's speech at the opening of the New York assembly, thereby to excite the charity of Pennsylvania, in relieving the poor Indians, whose corn and provisions had been destroyed by the French; and the contents of the house upon it, by way of message, thus communicated.

"Whereas the governor has been pleased to convene us by his writs, although not in the form of our charter, as we could desire, we have obeyed the same, and considered what he has laid before us, viz. an answer to the late queen's letter, and the proprietary's promise upon his restoration to his government; and are heartily and unanimously willing and ready to perform our duty therein, in far as we are able, if the governor would be pleased to settle our former constitutions, enjoyed by us before the government was committed to governor Fletcher's trust."

This was followed, on the governor's part, with a demand of money as before for the relief of the Indians: and the assembly choosing to take care of the provincial constitution first, required the governor to appoint a committee of the council to join with a committee of the assembly for that purpose: such a joint committee was appointed accordingly; who agreed on recommending as expedient, that the governor, on the request of the assembly, would be pleased to pass an act (of settlement must be understood) with a salvo to the proprietary and people; and that he would set out a number of representatives on the 1st of March next ensuing, to serve in provincial council assembly according to charter, until the proprietary's pleasure should be known therein; that if the proprietary

should disapprove the act, that then the act should be void, and no ways prejudicial to him or the people in relation to the validity or invalidity of the charter."

To this expedient the house unanimously agreed. A bill of settlement, and a money bill, were thereupon ordered and prepared; and after some temperament, reported, agreed to, and passed.

The money was for raising three hundred pounds for support of government, and relieving the distressed.

In the act of settlement, the principle was wholly dropped. Elections of council and assembly were to be annual and certain: the time of election, the 10th; the time of sitting, May the 10th: the members of council for each county two, for the assembly four: they were to be of the most for virtue, wisdom, ability, and otherwise qualified in point of fortune and residency. In the governor or deputy, and the said assembly and council, the governor was to be placed. The governor or his deputy was to preside in council; but at no time perform any act of whatsoever, by and with the advice and consent of the council, or a majority thereof: that two thirds were to be a quorum in the upper walk of business, and one third in the lower: that the assembly should have power to propose bills as well as the council: that both might confer on such as either of them should propose: that such as the governor in council gave his assent to, should be laws: that the style of those laws should be,—By the governor, with the assent and the approbation of the freemen in general assembly met: the duplicate thereof should be transmitted to the king's council, according to the late king's patent: that the assembly should sit at their adjournments and committees, and continue to prepare and propose bills, redress grievances, impeach criminals, &c. dismissed by the governor and council; and remain during the year liable to summons upon his and their summons; should be allowed and travelling charges; thirds to make a quorum; all questions to be decided by a majority; affirmations to be admitted in courts, &c. instead of oaths, where required: all persons in possession of lands by purchase or otherwise under any legal or equitable claim, to continue; sheriffs to be substituted to give security for office behaviour; elections were to be free, regular, incorrupt, &c. no member being permitted to be without wages, or for less wages by act appointed, &c. Neither the form nor effect of this act was to be diminished or altered in any part or clause thereof, contrary to the true intent or meaning thereof, without the consent of the governor and six parts in seven of the freemen of the council assembly.

* It had been agreed upon Fletcher's plan before specified.

it was to continue and be in force till the proprietary should by instrument under his and seal, signify pleasure to contrary: and provided, neither this other should preclude or debar the inhabitants of this province and territories from claiming, having, and enjoying any of the rights, privileges, and immunities, which the said proprietary for himself, heirs and assigns, did formerly grant, or which of right did unto them the said inhabitants by virtue of any law, charter, or grant whatsoever, any thing therein contained to the contrary notwithstanding.

A application from governor Fletcher for farther assistance, and the report of a committee of the assembly to whom it referred (urging the infancy, poverty, and incumbrance of colony in excuse for compliance) together with an act for ratifying and confirming the acts proceedings of the last year's assembly by persons questioned and misrepresented, are all the remains of what passed in the assembly of 1697.

Nor does thing material occur in the years 1694, 1699, till the arrival of the proprietary from England.

January 25th, 1699-1700, the assembly being convened for the second time, was told by the proprietary in person, that he had so convened them chiefly reinforce the former laws; or by new law more rigorously discourage piracy and forbidden trade: made inaneurs which he had exposed the government to much odium at home, which he had been much pressed by his superiors to correct, and which he, therefore, pressed concernedly upon them.

Both these points were immediately referred the consideration of two several mittess; of their members, in-law of their late lieutenant-governor Markham, proving to be the most obnoxious person the first of these accounts, they proceeded so far as to commit him, till satisfied by the governor that he had given sufficient security for his appearance what complaints should be brought against him.

They also took care to purge themselves on the head of forbidden or trade, which appears to have been done so effectual a ner, that the governor himself could not avoid co-operating with the council in their justification. To prove which, his to their several addresses (concerning fit person to be provincial treasurer; caution to avoid confusion in the election, which was be on a new model, as also the expediency of the advice of the council and assembly thereon; false information to England against them) here inserted, will sufficient: wit,

"First, as to the receiver or treasurer, that would consider of it, and would take care

to please all by choice of a fit person: as address avoid confusion in the next election, consented to the request of the house, ordered by general of council and assembly, minutes to be made in both: that, the election, three should be chosen for council in each county, six for assembly; the election to be the usual day; but reserving to himself the specification of the term the former to serve for, which was to be expressed the writ: and that as to the other point of false information sent against colony England, the unseasonable time of the year would not suffer the merits of the to be thoroughly discussed, but that all the representatives both of council assembly, had agreed in drawing up some general defence for the present."

And before their separation it drawn up and presented the governor accordingly.

The next general assembly met at the usual time, and in every respect an extraordinary one: extraordinary for the number of members superadded in the manner just recited: extraordinary for occasional law they passed at the instance of the governor and council, to prolong the present sessions beyond the time limited by charter; and extraordinary for the debates concerning another new frame of government, which continued through the whole course of it, without producing any satisfactory temperance at last.

Found intractable, after month's practice, they were dissolved; and in October following, a new assembly was summoned; not as before consist of thirty-six members, but of twenty-four; that is to say, four instead of six for each county.

The place of meeting also different: for instead of assembling as usual Philadelphia, the members convened Newcastle, perhaps only to gratify the inhabitants of the territories, at a time when extraordinary demands were to be made upon them for the gratification of the proprietary governor.

At the opening of this assembly, the governor said, he them upon urgent occasions: that they in want of a frame of government; body of laws; a settlement of property; and supply for the support of government: adding, that he would give them all the assistance in his power.

With the body of laws they began, and made a considerable progress in the : but the frame of government again met with as many difficulties as before. The conditions of union between the provinces and the territories, in particular, had like have produced an immediate separation: the dispute which arose concerning equal privileges or equal voices in the representative, could be no otherwise compromised than by referring the issue to the next general assembly.

The points which immediately con-

cerned both branches of the legislature, were the _____ of property and the supply. In the _____ the governor himself was deeply interested, _____ all _____ every landholder of _____ colony in the former. These, therefore, were to be _____ despatched; and, accordingly, _____ bill for _____ establishment and confirmation of the freeholders of both parts of the united colony, their heirs _____ assigns, in their lands and tenements; together with two _____ others; _____ for _____ of one penny per pound, and six shillings per head for support of government, &c. _____ for granting and raising to the proprietary and governor two thousand pounds, upon the real value of estates real and personal, _____ another six shillings poll-tax, of which _____ than _____ moiety _____ paid by the county of Philadelphia alone. Nor ought it to be forgotten, that in the preceding session four pence in the pound and twenty-four shillings per head had been demanded for these services; and _____ they paid by halves, _____ proprietary performed by halves; as the mention hereafter made of his charter of property will demonstrate.

The same assembly being again convened _____ August at Philadelphia, _____ consequence of a letter from his majesty, requiring an _____ of three hundred and fifty pounds sterling, towards the fortifications to be raised on the frontiers of New York, they excused themselves from complying; urging that the great sums lately assessed upon the colony by way of imposts and taxes, _____ above the _____ fears of quit-rents, had rendered them incapable: and these _____ readily admitted by the government; so that the proprietary interest in this instance undeniably supplanted the royal: _____ private interest public service.

In September, 1701, the proprietary _____ convened another assembly, consisting of four members _____ each of the six counties, agreeable to the law, _____ ascertaining the number of members, lately passed _____ Newcastle; and though he had in the last evaded giving a copy of his speech in writing to the house, as not being his usual way, _____ out of his way for this _____ it now.

Some apology he made for calling them together _____ month sooner than they would have met of course: assigned _____ a _____ the necessity he was under, through the endeavours of the enemies to the prosperity of the colony, in _____ for England, where, taking the advantage of his absence, some had attempted to undermine his government: talked _____ if _____ voyage _____ disagreeable _____ him: _____ if _____ quiet of a wilderness was all his ambition; as if his purpose had been to stay with them all ways, or at least till he could render every body safe and easy: _____ heart was _____ them, whatever _____ people might please to think; _____ no unkindness or disappointment,

_____ with submission _____ providence, ever be able to alter his love _____ the _____ his resolution _____ settle _____ family and posterity in it, &c. "Think, therefore, (continued he in the _____ captivating style and _____ that _____ made use of) since _____ mortal, of some suitable _____ pedient and provision _____ your safety as well as in your privileges as property, and you _____ find me ready to comply with whatsoever may render _____ happy by a nearer union of our interests. Review _____ your laws! propose _____ that may better your circumstances; and what you do, do it quickly! remembering that the parliament sits the end of the next month, and that the sooner I am there, the safer I hope _____ all be here."

He then returned _____ the three hundred and fifty pounds sterling, demanded by the king: imparted to them the happy issue of colonel Fletcher's conferences with the five nations; and again recommended unanimity _____ despatch, since it might contribute to the disappointment of those who _____ long sought the ruin of their young country.

The assembly returned _____ short but affectionate and respectful _____; after which they presented an address to him, consisting of twenty-one articles: the first desiring, that, on _____ departure for England, due care be taken, he might be represented there by persons of integrity and considerable known estates, who might have full power and _____ thority not only to grant and confirm lands, &c. but to compensate short and _____ over measure.—The second, that he would grant them such an instrument _____ might absolutely secure and defend the freemen of the province, by them represented, in their _____ and properties, from himself, his heirs and assigns for ever, _____ any claiming under him, them, or any of them; _____ also to clear _____ Indian purchases and others.—And the last, that the bill of property, passed _____ Newcastle, might be inserted _____ the charter, with such amendments _____ should be agreed _____

To each of the whole twenty-one he _____ turned _____ special _____; and to the three recited, those that _____ law. "To the first: I shall appoint those in whom I _____ confide, whose powers _____ sufficient and public for the security of all concerned: and I hope they shall be of honest character without just exception, _____ do th _____ which _____ right between you and me." ["Tis strange the crown should not be so much as mentioned."] "To the _____ cond: much of it is included _____ my answer to the first; however, I am willing to execute a public instrument _____ charter _____ secure you in your properties, according to purchase _____ law of property made lately at Newcastle, excepting _____ corrections and _____ absolutely necessary therein: _____ the last,

I agree that the law of property made at Newcastle shall be inserted in the charter with requisite amendments."

How short these expressions fell of his speech is obvious, and it is any honour to himself or his laws, that the latter stood in need of so many amendments, and that the freemen found it to think they could not take too many precautions to protect themselves against him.

To these answers of the governor, the assembly returned as many replies, of them expressing their acceptance and acknowledgments and the matter of the first being at all times equally reasonable, deserves to be particularly remembered, to wit, "that the governor, thou art pleased to promise, be invested with full and complete powers, and be obliged by clause in the commission to act without refusal or delay, according to the full and public powers thereof, and that it would please thee to nominate persons to the assembly."

The governor, on the other hand, whether out of artifice or complaisance is hard to say, would have induced them to name his substitutes themselves but, they artificially or complacently excused themselves, saying, they did not pretend to the knowledge necessary for such a nomination, and that they desired to leave it to the governor's pleasure.

While the charter of privileges was under consideration, the late breach between the members of the province and those of the territory was again opened, and soon grew wider than ever.

The territory-men were for obtaining some powers or rights peculiarly favourable to themselves, which the others thinking unreasonable, were not willing to allow and not being able to carry their point, the members for the territory left the house.

The proprietary interposed his authority to bring about an accommodation, and for the present prevailed. But the spirit of animosity still remained, and what with the hurry the governor was in to set sail, and what with the dispute which between him and the assembly concerning the allowance to be made to such as had defective titles to their lands, the remainder of the session was plausibly opened, and which the constitution was scarcely settled, was soured with expostulations and reproaches even to the last of it: and the governor and his freemen last parted like people who were equally glad, they made so much of, and were now to be separated from each other.

And thus the course of time has brought us to that frame or system which, in subordination to the royal charter, is at present, the rule of government in Pennsylvania.

In May, 1700, the former had been surren-

dered into the hands of the governor, by six parts in seven of the assembly, under a solemn promise of restitution, with such alterations and amendments as should be found necessary.

On the 26th of October, 1701, when the governor was so near his departure that it might almost be said he had no foot on board, this promise was made good, the council, assembly, (the provincial part of it, that is to say,) and several of the principal inhabitants of Philadelphia attending.

The charter of privileges granted by William Penn, Esq. to the inhabitants of Pennsylvania, and territories, this important instrument is called: and the main purport of it follows, to wit "that because no people could be truly happy, though under the greatest enjoyment of civil liberties, if abridged of the freedom of their consciences, as to their religious profession and worship, no inhabitant, confessing his acknowledging almighty God, and professing himself obliged to live quiet under the civil government, should be in any case molested or prejudiced in person or estate, that all persons professing to believe in Jesus Christ the Saviour of the world, promising when required, allegiance to the king, and taking certain oaths by a certain provincial law provided, should be capable to exercise the government either legislatively or executively, that an assembly should be yearly chosen by the freemen, composed of four persons out of each county, of most note for virtue, wisdom, and ability, or of a greater number, if the governor and assembly should agree, upon the first of October for ever, and should on the 14th following, with power to choose a speaker and other their officers, to be judges of the qualifications and elections of their members, sit upon their own adjournments, appoint justices, prepare bills, impeach criminals, and redress grievances, with all other powers and privileges of an assembly, according to the rights of the freeborn subjects of England, and the assembly observed that any of the king's plantations in America: that two thirds of the freemen so chosen should have the full power of the whole: that the said freemen in each respective county, should meet and place of meeting for electing representatives, might choose a double number of persons to present to the governor for sheriffs and coroners, to serve for three years, if so long they should behave themselves well, out of whom the governor was to nominate one for each office, provided his nomination was made the third day after presentment, otherwise the person first named to serve; and in case of death or default, the governor to supply the vacancy: three persons should be nominated by the justices of the respective counties, out of whom the governor was to select one to serve

for clerk of the peace, within *ten* days, or otherwise the place to be filled by *one* *person* nominated: that the laws of the government should be in this style, viz.—*By the governor, with the consent and approbation of the freemen in general assembly met*: that all criminals should have the same privileges of witnesses and council *as* their prosecutors: that no person should be obliged *to* any complaint, matter *or* thing whatsoever, relating to *property*, before the governor *and* council, *in* any other place but in ordinary *of* justice, unless in appeals according to law: that the estates of suicides should not be forfeited: that no act, law, or ordinance whatsoever should at any time hereafter, be made or done to alter, change, or diminish the form or effect of this charter, or of any part *of* clause therein, according to the true intent and meaning thereof, without the consent of the governor for the time being, and *the* parts in seven of the assembly met. that the first article relating *to* liberty of conscience should be kept and remain without any alteration inviolably for ever: that the said William Penn, for himself, his heirs and assigns, did thereby solemnly declare, grant, and confirm, that neither he, his heirs or assigns, should procure, or do any thing or things, whereby the liberties *of* this charter *should* and expressed, nor any part thereof, should be infringed or broken; and, that if any thing should be procured and done by any person *or* persons contrary thereto, *it* should be held of *no* force or effect."

Thus, though much remained of the first institution, much was taken away. The people had *no* longer the election of the council; consequently all who, for the future, were to serve in that capacity, were to be nominated by the governor; consequently *to* *the* on what terms he pleased. Instead of having but three *of* *the* seventy-two, he was left with *one* *the* executive, and *the* liberty to *the* strain the legislative, by refusing his *own* assent to their bills whenever he thought fit.

On the other hand, the assembly, who at first could not propound laws, though they might amend *or* reject them, *were* put in possession of that privilege; and, upon the whole, there was much *of* *the* for *the* knowledgments than complaints.

How much *of* the governor had grown upon Mr. Penn, and how much soever *of* concern for others *was* off, when raised to *the* sphere above them, it *is* plain he had not forgotten his own trial, *the* the noble commentary upon *Magna Charta*, which, in his tract called, *The people's ancient and just liberties asserted*, he had upon that occasion made public; wherein he says,

"There were but two sorts of government: will and power; or, condition and *the* the first *is* *a* government of men, the

second of laws. That universal reason *is* *one* *be*, among rational beings, *the* universal law: that of laws, some *are* fundamental and immutable: some temporary, made for present convenience, and for convenience to be changed. That the fundamental laws of England were of all laws most abhorrent of will and pleasure: and, that till *houses should stand without their own foundation, and Englishmen cease to be Englishmen, they could not be cancelled, the subjects deprived of the benefit of them.*"

Such as it was, by the freemen of the province *it* was thankfully accepted, but by *the* of the territory unanimously declined; and in this divided condition this *Lycurgus*. *Montesquieu* calls him, left them.

Andrew Hamilton, Esq. (not the celebrated barrister of that name) *the* the person appointed to be his substitute; and the principal effort of his administration was to bring about a reunion, which being at length found impracticable (the territory-men still persisting in their refusal of the charter) the province, in virtue of that charter, claimed a separate representative of their own, which in point of number *was* fixed at eight members for each of the three counties, and two for the city of Philadelphia, now so constituted by the proprietary's special charter, and after duly qualifying themselves according to law, their first resolution *was*.

"That the representatives *of* delegates of the freeholders of the province, according to the powers granted by the proprietary and governor by his charter, dated the eighth day of October, *anno Domini* 1701, may next assembly *on* the fourteenth day of October, yearly, at Philadelphia, or elsewhere, *shall* be appointed by the governor and council for the time being, and *shall* continue *in* their own adjournments from time to time during the year of their service, as they shall find occasion, *to* think fit, for preparing of bills, debating thereon, and voting, in order to their being passed into laws; appointing committees, redressing of grievances, and impeaching of criminals, as they shall *meet*, *in* *an* ample *as* any of the assemblies of this province *the* territories have hitherto at any time done, *may* might legally do; as effectually, to all intents and purposes, as any of the neighbouring governments under the crown of England have power *to* do, according to the rights and privileges of the free-born subjects of England, keeping *the* the rules and prescriptions of *the* parliament of England; as *may* *be*, respecting the infancy of the government *the* the capacities of the people: *that* that the said assembly, as often as the governor for the *being* shall require, attend *on* him, in order to legislation: and *shall* *all* other just ends of assemblies on any emergencies or reasons of state; but

not be subject any time to be by him adjourned, prorogued, or dissolved."

This the state of things when John Evans, Esq. appointed deputy-governor on the death of Mr. Hamilton, arrived in the province, in the beginning of the year 1704.

What his commission and instructions does not appear; but having convened the representatives both of the province and territories, to meet him the same time in council-chamber, he affected to be surprised at finding them in separate states; said her majesty considered them as one entire government; and earnestly pressed them both come to an amicable agreement, not without intimation, that neither of them would otherwise be in a condition to act all.

The provincials, in return, intimated, that they should be heartily glad of a farther union with the territories if it could be obtained without prejudice to their constitution or to their charter: said, those of the territory had been the occasion of inserting that clause in their charter by which they had been enabled to act separately: made professions of so much good will and good neighbourhood as might prevent all inconveniences from their separation: that they had appointed a committee to confer with them, &c.

Conferences were accordingly opened between the two houses, which produced two proposals: one from the territory members, not over ingenuous in its contents, offering now to receive the charter they had till then rejected, and to co-operate with those of the province; and the other, a reply from the provincials, charging them with inconsistency, and declaring, that seeing they were by their former refusal necessitated to form themselves into a distinct assembly, and were now established accordingly, it was not in their power, as they conceived, without a violation of the charter and trust reposed in them, to entertain any expedient to reconcile their request of an union with the said charter, &c.

Thus all negotiation on this head came to an end, and the provincials were already in disgrace with their new governor, for showing so little regard to his recommendation.

A bill to confirm their charter, and some proceedings to correct the exorbitancies of the proprietary land-office, rendered them yet farther obnoxious; and they also were in their turns exasperated by intemperate censures passed on their proceedings by the governor's council.

Nor was this all: the bill to confirm their charter, &c. was sent back, with such amendments as appeared to the house destructive to the present constitution, and for that reason drew from them the following unanimous resolutions and address founded thereon: to wit,

"Resolved, that what is proposed for amendment the fourth and _____ of

the bill, will render the said charter useless and ineffectual, and bring an odium upon the proprietary, who granted this instead of other charters, wherein were larger and greater privileges granted to the first adventurers and purchasers of land in this province, which they expected (as it their undoubted right) to enjoy, as well as the lands they bought; therefore this house cannot admit of those amendments; because they are also destructive to the present constitution, by which the representatives of the free people of this province are now assembled, and resolved to _____ and maintain.

"Resolved, that the method of passing _____ by the governor should be adjusted and settled; but whether the governor thinks fit to be in council or not at the passing of bills is submitted to him.

"Resolved, that it is consistent with the late king's letters patent, and the _____ charter of privileges, that the council (as _____ chosen) should have a share in the legislation, unless it be when the government is the council; which this house agrees may be upon the death of the governor, unless other _____ be made by the governor in chief; and that a clause may be added to the bill for that purpose."

"To John Evans, Esq. lieutenant-governor, &c. &c."

"The address of the assembly of the said province, sitting at Philadelphia, the twelfth day of August, 1704.

"In all humble _____ sheweth,

"That this assembly, having taken into their serious consideration the matters yesterday debated in the conference, relating to the proposed amendments to the bill intitled, *An act, for removing and preventing all questions and disputes concerning the convening and sitting of this assembly, &c.* as also for confirmation of the charter of privileges, do _____ nothing advanced that _____ reconcile the said amendments to the constitution of _____ charter; and thereupon do _____ to this resolve,—That _____ admit of the power of dissolution, _____ prerogation in the governor, will manifestly destroy or frustrate the elections settled by the charter, which is a perpetual writ, supported by the legislative authority of _____ government, and will make way for elections by writs grounded upon _____ prerogative, or rather a pre-eminence, which the proprietary and his deputy _____ by charter debarred _____ resume.

"But to take off the jealousies that may arise upon that part of the charter and bill, which impowers _____ sit upon our own adjournments, we _____ willing to settle and limit the times of adjournment and sitting; _____ in order thereunto propose to the governor,

"That a clause be added _____ the aforesaid

bill, that the _____ of the assembly's sitting from the fourteenth of October, yearly, shall not exceed twenty days, unless the governor for the _____ being and assembly _____ agree to a long _____ time; and the adjournment _____ that time _____ not be less than three months; _____ so _____ every time of sitting, and every adjournment within the year, respectively.

The return to this _____ follows _____

"From the governor _____ council _____ the _____

by, _____
 "The governor upon the best advice he can have upon the point of dissolution and prorogation, cannot _____ of opinion, that the proprietary has granted away that power; and that therefore it _____ very unsafe for him to do it _____ is very unwilling _____ have any misunderstanding with the assembly, and shall always be inclinable _____ make things easy in this, _____ well _____ other points, and desires _____ leave it till further directions can be had from England, to which he thinks it is _____ the matter should _____ referred and in the mean time recommends to the assembly, to proceed to the despatch of such other business of importance as lies before them, and the exigencies of the government necessarily require, and to which _____ opportunity now presented to them ought to invite and encourage them."

And thus was the rejoinder of the assembly

"To John Evans, Esq. lieutenant-governor _____ &c.

"The address of the representatives, &c _____
 "Humbly sheweth.

"That _____ have taken into our serious consideration thy written message yesterday, relating to the bill for confirmation of the charter of privileges, &c _____

And _____ the points of dissolution and prorogation _____ by thee asserted, and the power of this assembly to sit upon their own adjournments, first brought _____ question by the council in October last, which occasioned _____ proceed thus far _____ explaining and settling our constitution by charter, _____ cannot safely let it drop at this time (and _____ disputable) without violation of, or injury to, _____ said present constitution, and consequently it _____ not be so proper to proceed _____ the despatch of other affairs of importance before us, whilst _____ foundation _____ unsettled

"_____ allowing what _____ of the members of council who _____ with the message was pleased to observe to _____ that the proprietary _____ not _____ away the power of dissolution, &c _____ by the charter (in express words) yet that it could _____ be intended to be reserved by him, seems, evident to us for the following reasons

"First, because it could _____ no time be put in practice, without frustrating the very de-

_____ of the grant, _____ should have an annual standing assembly

"Secondly, that whenever a dissolution should happen, the governor, _____ being capable _____ call a new _____ by writ, as the same member of council rightly observed, the remaining part of that year the province must _____ destitute of _____ assembly, and the governors of power to call one, whatever command _____ from the crown _____ other extraordinary or _____ may happen, unless (as the said member _____ pleased to observe) by some such _____ as would need the power of a subsequent assembly, to confirm all that they should have occasion to act or do

Thirdly, that the proprietary, in the preamble of this present charter, having been pleased to remember and acknowledge his promise made to the assembly upon the delivery of the former charter, that he would either restore _____ that _____ another better adapted to our circumstances _____ therefore, in answer _____ of his good and sincere intentions, this charter must be such an _____

"Fourthly, by the former constitution, it is very plain there could be _____ dissolution, because the same members of assembly, and no others, were liable to be called at any time within the year and _____ many years' experience, no inconvenience found to arise there by, nor was that any controverted point between the proprietary and the people, for the rectifying whereof another charter was thought necessary, but other matters not unknown to some of the council

"Fifthly, and lastly, as a clear proof that the proprietary never intended to reserve the power of dissolution, it may be remembered that at the close of the session of assembly in the year 1701, when the members being then chosen, by writs requested a dissolution the proprietary answered, he would not do it, nor could he _____ it to the crown, to leave the province without a standing assembly

"Upon the whole, we take leave to inform thee, that _____ this assembly (having long waited _____ hopes of the passing of this with other _____ lying before thee) is much straitened in time, this season of the year urgently calling most of the members from their attendance; and considering the governor's great indisposition _____ obstruction of business, and that another election is _____ hand; that _____ is the inclination and desire of this house, that _____ other business might be waived till the meeting of the next assembly; and that in the _____ time, the governor would _____ favourably pleased further to consider the aforesaid points"

Impelled also to discharge their minds in _____ the proprietary himself, they agreed, _____ several heads of complaint, which were entered _____ their minutes _____ follow, _____ wit

"First that the proprietors, the first settling of this province, promised large privileges, and granted several charters to the people, but by his artifices brought them to it his will and pleasure, to defeat

Secondly, that dissolution and prorogation, annulling the public, by his writs, impowered by his commission to his present deputy, and his orders to his former deputies and commissioners of state, are contrary to the charters.

Thirdly, that he has had great sums of money lent him was here, for negotiating the continuation of laws, and for making good terms at home for the people of this province and vice his friends here of oaths, &c. but we find of our laws are confirmed and the relief against oaths, but in order from the quiet to require oaths to be administered, whereby the quakers are disabled to sit in courts.

Fourthly, that there has been no survey of the land since 1714 and Pennsylvania died but great abuses by surveyors and great extortion by the land and other officers concerned in the survey by reason of the proprietary's refusing to pass that law proposed by the assembly in 1701 to regulate the same &c.

Fifthly, that we are like to be remembered very long that he hath not particularly insisted on the express provision for, because the present deputy called it a great burden upon him and some of the council urged it as absurd and unreasonable to dissent or to meet any enlargement or explanation by him to what the proprietaries granted.

Sixthly, that we are also left immediately in this that when we are wronged and oppressed about our civil right, by the proprietors we cannot have justice done us because the clerk of the court being of his own sitting, he refuses to make out any process to all the justices by and before whom our cause is against him should he find, are of his own appointment by means whereof, he becomes judge in his own case which is against all law and equity.

Seventhly, that the sheriff and other officers of the great trust in this government, which the proprietary hath communicated by giving them of no visible estates, and if any of them have given security it was to himself, so that the people whom these officers have abused and defrauded, can reap no benefit in such security.

Eighthly, that although the commissioners of property have power by their commission to make satisfaction where people have not their full quantity of land according to their purchase, yet they neglect and delay doing right in that behalf.

Ninthly, that we charge the proprietary not to surrender the government, taking notice of the intimation he had given of making

&c. and let him understand how vice grows of late."

And they ordered a representation to be drawn up consequent thereto sent by the first opportunity.

Parts of this were already before us, and as a suggestion was afterwards made, that contained other matter than we comprehend in the articles, the remainder desiring to be inserted here.

"That upon thy being restored to the government, thou required the lieutenant to govern us according to charter which by reason of Fletcher's interruption became impossible before thy orders reached us, and so the government fell under great confusion again. We the administration of this province much better managed because thou put us that commission in thine own hand, that we would not act and that the effect of property and surveyor general called to shut up and thou kept them at the old lands to the value of about 400,000 pounds sterling and gave thy warrant to England for surveying the same and also got great tracts of land laid out for thyself and relations by several humble parcels which should have been laid out for the purchase but were reserved for surveyors, whether for thee or their heirs we know not however thou appointed a clerk to thyself by the name of clerk of the lands whereas in truth they were called from the purchasers who were to be laid out contiguous one another and vacancies left between them and so we have only thy tenth of it left according to the chances on thou made with thy adventures, and if that to thyself was thy own (not their) fault but it did us a manifest injury to say it was declared.

Thy upon thy last return to the state the hardships and disappointments which laboured under we hoped to enjoy to try of thy former promises and engagements but instead of that we found thee a wilful resentment and found thee a wilful address about our just rights and properties were answered by recriminations and bitter invectives and we found that the false insinuations and reproaches that were made had cast upon the province, with respect to false trade and harbouring of pirates had made so great an impression upon thee that thou rather believed them than thy honest friends.

And when thou entered upon legislation thou wast pleased to repeal all the laws that were made in colonel Fletcher's time, which were approved by the king or queen, as we were informed, and as we gathered by the thou gave of them viz that chancellor Somers for thee to know

what thou ■■■ object against any of those laws : and if it had not been for thee none of them had passed. ■ words to that effect : and ■ only ■ the people being minded to surrender the said second charter, upon thy promise to give them a better ■ lieu of it ; and under pretence of passing an act for confirming ■ securing their lands, &c. thou obtained liberty to resurvey all the lands in the province, and ■ bring the people to terms for the overplus : so that by this stratagem, the warrants, surveys, and ■ patents cost the people ■ much, and ■ more, than the first purchase of their lands, besides their long attendance upon thy secretary and surveyors to have their business done : but before thou would pass that act, it must be accompanied with an impost or excise, and ■ two thousand pounds bill besides : and all this thou ■ deemed but inconsiderable, when thou compared it with the vast charge thou had been at, in the administration and defence of this government, since the year 1632, though ■ know thy stay here at first coming ■ not above two years, but went home about the difference between thee and Baltimore, concerning the bounds of the lower counties, and did not return till the year 1660 : excusing thy stay by thy service to the nation of England in general, and to thy friends there ■ particular, (as appears by thy letters from time to time) whilst the interest of this province ■ was sinking, which might have been upheld by the many wealthy persons that ■ inclined to transport themselves here, after the rout of Monmouth, if thee had then come over according to thy repeated promises : and how far thy stay has either effected what thou went about, or contributed ■ the establishment of the inhabitants here in their just rights and liberties, and properties, we leave thee ■ demonstrate, and the world ■ judge : in the ■ time, ■ desire thee to consider better what is place to the account of this province ; and do not forget that no part of thy pretended charges ■ expended in paying ■ of those who acted under thee, in the administration here, ■ of whom, viz. Thomas Lloyd, served thee ■ that station about nine years of thy absence, which thou leaves, it ■ for the country to discharge.

■ That after thou had managed these points, and was sent for to England, thou granted the third charter of privileges, by which we are ■ convened ; ■ also a charter to incorporate the city of Philadelphia, and signed a charter of property, but refused to order thy ■ to ■ affixed thereunto, ■ thou had advised upon it ■ England : nevertheless, thou promised under thy hand, that thou would confirm the first part of ■ relating to titles of land, ■ thou ■ thy order, under hand ■ seal, dated within six months after, to countermand the sealing thereof.

■ That after the laws ■ completed for raising all the said ■ and imposts, thou proposed that if thy friends would give thee ■ sum of money, thou promised ■ negotiate their affairs ■ home to the best advantage : and endeavour ■ procure the approbation of our laws, and ■ general exemption from oaths. ■ that considerable ■ have been raised by way of subscription and benevolence, for that service ; part thou received before thou went, and more have been received since by thy secretary ; but we had no account that ■ laws ■ approved. ■ had we ■ much ■ a letter from thee, nor any other intimation but by thy secretary's letters, which he thought ■ fit to communicate by piecemeals, whereby we understand, thou has been making terms for thyself and family : and by what we gather, thou hast been upon surrendering the government : nor are thy friends here eased of oaths, but ■ the contrary, an order from the queen, requiring oaths to be administered to all persons who are willing to take them in all judicatures, whereby the people called quakers are disabled to sit in courts.

■ That by the last charter or privilege, thou established ■ annual election of representatives for assembly, and that they should continue and sit upon their own adjournments. yet by thy commission to thy present deputy, John Evans, thou did, in a direct opposition to the said charter, give him power not only to call assemblies by his writs, but to prorogue and dissolve them ■ he should see cause, and also reserved to thyself, though in England, thy final assent to all bills passed here by thy deputy : we suppose thou hast not forgot, that what rendered the former charter inconvenient, if not impracticable, was chiefly that colonel Fletcher's interruption had extinguished the rotation of the council, and next to that, the proposals of laws by the council, in presence of the governor ; ■ also the instability of the ■ lower counties, which we had before experience of, and whose result was then doubted, as hath since happened : but that annual standing assemblies, liable only to the dissolution and call of the governor on occasion required, ■ never found an inconvenience, ■ assigned ■ a reason for changing the said former for the present charter : and should that of dissolution be introduced, ■ would frustrate the constitution, because if a dissolution should happen, the province might be a great part of the year without ■ assembly, ■ the governor without power to call one, whatsoever commands from the crown, or other occasions may happen : for that the election being fixed by charter, which is in nature of a perpetual writ, and has the authority of a law : if it could be superseded by ■ governor's writ, which is but ■ of ■ and merely temporary, it would ■ of

pernicious consequence to the province as well as thyself: and of this thou seemedst very sensible, when being desirable by the assembly, upon the close of the session in the year 1701, to dissolve them, (being then called by writs) thou told them, thou wouldst not do it, for that thou couldst not answer to the crown to leave the province without a standing assembly.

"That as the exemption from any dissolution or prorogation, secus ■ be ■ inseparable consequent of thy grant, ■ well as our constant practice upon the former charter, which this was by thy promise to exceed, ■ upon ■ attempt made by the council, to prorogue ■ in October last, we have thought it our duty to prepare ■ bill for ascertaining, explaining, and settling ■ present constitution: which we having presented to thy deputy for his assent, he finding that the power of dissolution and prorogation is not in express words granted away by charter, as also the inconvenience thereof with his said commission, after several conferences thereupon, had with him and his council, he thought fit to advise ■ to forbear the farther pressing it. ■ we should hear from thee; therefore he being unwilling to pass the said bill by us judged so necessary, and the very foundation of our present constitution, we could not think it proper to proceed to perfect any other business, whilst that remained unsettled: nor do ■ suppose any thing will ■ done in legislation either by the present or succeeding ■ assemblies, till the difficulties we labour under herein be removed, either by thy speedy order, or by thy deputy without it: seeing to proceed upon other matters, would be to raise a superstructure before the foundation were well laid; nor do we look upon it very advisable for us to proceed far in legislation, until thou repeals those parts of thy lieutenant's commission, relating to prorogation and dissolution of assemblies, for the ■ before given; ■ also concerning thy final assent ■ laws, which ■ to be very unreasonable in itself, and ■ great abuse and violation of our constitution, that thou should offer to put three negatives upon our acts, whereas by our first charter, we had ■ but that of the crown; and how thou gained another to thyself, ■ have before showed thee, but now to bring ■ under three, secus a contrivance to provoke ■ to complain to the queen, that thou art not effectually represented here, ■ make ■ motive for her to take us under her immediate care and protection, which would make thy surrender in some measure ■ act, which if thou should do without the ■ of the landholders ■ inhabitants of ■ province first obtained, would look too much like treachery.

"That ■ appears, by several petitions now ■ us, ■ very great abuses have ■

are put upon the inhabitants, ■ extortions used by thy secretary, surveyors, and other officers, concerned in property as well ■ courts, which might have been prevented or sooner remedied, had thou been pleased ■ pass the bill proposed by the assembly ■ the year 1701 to regulate fees; ■ also the want of a surveyor-general, which is a great injury and dissatisfaction to the people; ■ is likewise the want of ■ established judicature for trials between thee and the people; for if ■ exhibit our complaints against thee, or those who represent thee in state or property, they must be determined by or before justices of thy ■ appointment; by which means, thou becomes, in a legal sense, judge in thy own cause, which is against natural equity: therefore, we propose, that a man learned in the laws of England, may be commissioned by the queen, to determine all matters, wherein thy tenants have just ■ to complain against thee, thy deputies or commissioners: ■ else restore the people to the privilege of electing judges, justices, and other officers, according to the direction of the first charter, and intent of the first adventurers, and as the people of New England have by king William's charter: that thy commissioners of property, are very unwilling to make good the deficiencies of those lands thou hast been many years ago paid for (though thou gave them power ■ to do) and so great is the difficulty and trouble to get satisfaction in this particular, that it ■ better for one to forego his right, than wait on and attend the commission ■ about it, unless the quantity wanting be very great.

"We have many other things to represent to thee ■ grievances: as thy unheard of abuses to thy purchasers, &c. in pretending to give them a town, and then by imposing unconscionable quit-rents, makes it ■ by tenfold than ■ purchase would have been, also the abuse about the bank, and want of common to the town, and not only so, but thy very land the town stands on, ■ not cleared of the Swedes' claims.

"These ■ the chief heads, which we thought fit ■ this time to lay before thee, earnestly entreating thy serious consideration of them, and that thou wilt ■ last, after we have thus long endured and groaned under these hardships (which of late seem to be multiplied upon us) endeavour ■ thee, to retrieve thy credit with us thy poor tenants, and fellow-subjects, by redressing these grievances, especially in getting our laws confirmed, and also to be eased of oaths, and giving positive orders to thy deputy ■ unite heartily with ■ upon ■ constitution; and ■ charters thou granted us for city and country, may ■ explained, settled, and ■ by law: and ■ further entreat, that effectual ■ be taken ■ the suppressing

of vice, which, to our great trouble we have acquainted them, is more rife and common amongst us since the arrival of thy deputy and son, especially of late, than ever known before. We are capable to suppress it, whilst it is connived at, if not encouraged by authority, the mouths of the more sober magistrates being stopped by the said late order about oaths, and the governor's licensing ordinaries not approved by the magistrates of the city of Philadelphia, and thus chiefly ruled by such are of the most exemplary for virtuous conversation: thy positive orders in the premises, will be absolutely necessary to thy deputy, who thinks it reasonable, and a great hardship on him, to give sanction to laws explanatory of thy grants, do any thing by way of enlargement confirmation of aught, save what is particularly and expressly granted by thee, being by of his council urged an authority as to expect, and we desire that thou would order the licensing of ordinaries and taverns, to be by the justices, according to thy letter dated in September, 1697; and we hope we need not be express charging thee, as thou tenderest, thy own honour and honesty, the obligations thou art under to thy friends, and particularly thy first purchasers and adventurers into this province, that thou do not surrender the government, whatsoever thou may by so doing make for thyself and family, which we shall deem less than betraying and at least will look like first fleecing, then selling: but rather use thy utmost interest with the queen, to ease us in the premises; and if after thy endeavours used to keep the government, it be per force taken from thee, thou wilt be the clearer in the sight of God, and the representatives of the people of this thy province, who are thy real friends and well wishers, we hope is evident in that we have dealt thus plainly with thee."

but natural, that such a paper as this should deeply affect those it levelled against; and that it should operate differently on persons differently made and differently situated.

Those best acquainted with the necessity of keeping the first principles of government before their eyes, and the danger of admitting the least departure from them, could but be pleased with the plain and firm language of this remonstrance. while those apt to be with the outside of things, that they are incapable of looking into their contents, as much softened with concern for and founder of their community, and consequently inclined to think him hardly dealt by.

There is something in connexion and dependence which gives to all we think and wish, as well as what we say:

in disputes this be duly allowed for on both sides.

Seven persons of them of the council, made their application by petition to the next assembly for a copy of it, but were flatly refused, and even when the governor himself in very high language required it, they were immovable as before.

Willing they might be to reach to the propriety to a due sense of his first obligations, they might be equally unwilling to expose him, and agreeable to this, the assembly of 1706-7 in one of their remonstrances to the governor say, "that hoping the bill of courts then dispute would have put an end to some of the grievances they had several years groined under, they had hitherto forbore publicly to remonstrate, choosing rather to provide remedies for things since than to complain of them." Some concern that might also be under for themselves, their ascendancy as precarious depended on the good will of numbers and the infirmity of above touched men, might happen to operate more powerfully in the people, than the consideration of justice and equity to themselves and their posterity. The province, at this time, had moreover than persons on account of oaths, a militia, &c. to apprehend some inconvenience if they fell under the immediate government of the crown, and therefore did not care to break with the proprietary entirely.

Nor was it long before, by partial and indirect practices, such both influencing and awing the electors (facts publicly charged on the instrument of government by the assembly of 1706-7) that the governor obtained both an assembly and a speaker, almost complaisant he could wish. Nor ought it to be forgot, that his successor *Grady* obtained such another in the year 1710.

In all matters of public something personal will interfere. Thus we find during this turbulent period, two names frequently occur, as opposite, in principle purpose, and the oracles of their respective parties, to wit, David Lloyd, speaker of the assembly, and James Logan, secretary to the governor and council.

Logan meets the members of the assembly sent from the house on a message to the governor. The house it, complain of it, arraign his conduct in office, and proceed against him as a public delinquent. The governor, on the other hand, conceives an insupportable aversion to the speaker, points him out to the public as an interested, factious, dangerous person, arrogantly at two several conferences, complains of the house for not abandoning him to his

heat kindled heat; animosity excited animosity; and each party resolving to be al-

ways in the right, were often both in the wrong.

By the way, *tax*.—And it is necessary still to add, that all this while, the charter of *privileges* and that for the city of Philadelphia, as well as that of property, remained undisturbed *at home*, and the people plainly told by Evans, that, till both the proprietary and his governor were put upon proper establishments, they were not to expect the fruits of his favour and protection.

The last of those charters, the said governor, *of his papers*, pleased to style a tedious bill of property, fitted entirely to the people's interest, and with so little regard to the *proprietary*, that it seemed strange how reasonable men could, without confusion, offer it—and another he discourses of it as a project of the *speakers*, to incorporate the whole province, and take away the whole power out of the hands of the *proprietary* and *governor*, and lodge it in the people.

To which the assembly replied in the remarkable words following,

"And to what is now concerning the charter prepared at the proprietary's departure, the draughtsman has assured us, that no point or power is comprised in that charter out what was the proprietary's direction, revised and corrected by his cousin Parmer, before it was engrossed, and afterwards signed by himself—but whether the proprietary designs thereby to reverse the method of the government according to an English constitution, and establish a republic instead, or save the people to struggle with the *queen's* *courtiers*, which he then expected would be the consequence of the bill then moving in parliament against proprietary governments, the draughtsman cannot tell—but he will remember, that the proprietary told him, that he held himself obliged to do what he could to confirm his tenants their lands and properties, and give them all the power he could as he was lord of this *ignominy*, and much more to that effect."

And now, to finish the head of the representation, which throws so much light on the first foundation of this colony, what afterwards passed the assembly concerning it, and our requires should here be subjoined.

"What, says governor Evans, I must not be silent in, is that he, (the proprietary) highly resents that heinous indignity and most scandalous treatment he has met with in the letter, directed not only to him-self, but also to

be shown to other persons disaffected to him, in the of the assembly and people of this province, of which I have formerly demanded a copy, but then denied it, under pretence (when it was too late) that it should be recalled if that letter was the of the people, truly represented, he thinks such proceedings sufficient to cancel all obligations of care them—but if done by particular persons only, and it is an impature in the of the whole, he expects the country will purge themselves, and take care that due satisfaction be given him."

The reader will observe that the letter is complained of as scandalous, because of its *falshood*, but because of its *freedom*, in which it must be understood consists the indignity.

And the assembly's reply follows.

"As to the representation letter sent to the proprietary by order, in the name of the former assembly, which he takes, it seems as an indignity, and resents it accordingly. It not having been done by this house, but being the act (or the name) of a former, as we are not entitled to the affront, if any be, neither we concerned in answering it, our part is only to lament (as we really do) that there should be true occasion for such representation; or, if none, that it should be offered to our proprietary, whom we both love and honour, and, therefore, we hope his obligations of care over us and the people of this province by no such means shall be cancelled."

That this man's government should be on continued broil, from the beginning of it to the end, is proof sufficient, that Mr Penn left his *frame* at least in a very imperfect state.

Nor were the people themselves insensible of it, nor backward to declare their sentiments concerning it, than of the other parts of his conduct.

Evans, for example, having made use of the following clause in of his papers to the assembly, to wit:

"The governor, on his arrival, found the people possessed of a charter, by virtue of which the present assembly sits, containing the *frame* of government, settled solemnly, he has reason to believe, between the proprietary and the people, because by the subscription, as said to be *thankfully* accepted of by the assembly then sitting, and signed only by the proprietary, but by the speaker of the assembly, in the of all those of the province (as it is affirmed) who then present, and unanimously consenting, and is further witnessed by the council, thus, therefore, ought fully to conclude for if the people could allege, that thing more was their due, it ought at that time to have been fixed and settled; this assembly then sitting, as the governor informed, hat-

* * William Biles regretted this house that Nathaniel Pickle had a letter from the proprietary to be communicated—said persons in re encouraging the interest upon privileges of the charter and laws and not tamely give them up and instance what advantage it has been to the people of Rhode Island Connecticut and other proprietary governments to assert their rights. *Journal of Assembly for August 21, 1704*

ing fully considered and debated it, or if any demands, which it is imagined might further have been made, ■■■ then granted, the governor cannot think it proper for him to intermeddle or to concern himself further ■■■ by virtue of the king's letter patent, to the proprietary, and the proprietary's commission to him, with her majesty's royal approbation, to govern according to that charter, and the laws in force, &c.

The assembly thus replied

"As to the present charter, which the governor found in being at his arrival, though ■■■ be far short of ■■■ English constitution, yet even that has been isolated by several provisions made upon it and if the governor cannot grant the just and reasonable demands of the people's representatives agreeable with ■■■ English establishment, there is cause to conclude, that the proprietary is not fully represented here and, however the charter ■■■ revised, yet it was not with such unanimity ■■■ alleged, because diminutive of former privileges, neither was ■■■ prepared by the voice of representatives, but done in great haste." ■■■

"We ■■■ not striving for grants of power, but what are essential to the administration of justice, and agreeable to ■■■ English constitution and if we have not been in possession of this these twenty-four years, we know ■■■ place the fault, and shall only say, it is high time we ■■■ the enjoyment of our rights."

And lastly, the said assembly having drawn up two several remonstrances to the proprietary, reciting the particulars of their grievances, and complaints against the said governor, took occasion in the last of them, dated June 10, 1767, to express themselves ■■■ follows

"We, and the people ■■■ represent, being still grieved and oppressed with the maladministration and practices of thy deputy, and the ill carriage, unwarrantable proceedings, and great exactions of thy secretary, are like to be destroyed by the great injustice and arbitrary oppressions of thy evil counsellors, who abuse the powers given thee by the crown, and we suppose have ■■■ much prevailed upon thee to leave us hitherto without relief."

"That the assembly which sat here on the 10th of the sixth month, 1764, agreed upon certain heads or particulars, which, according to the order of that day, were drawn up in a representation, and ■■■ signed by the speaker, and ■■■ thee by a passenger ■■■ John Gay's brigantine, who ■■■ taken ■■■ France, from whence the ■■■ representation was conveyed to thy hands, whereby thou ■■■ put ■■■ mind,

upon what score the purchasers and first adventurers embarked with thee to plant this colony, and what grants and promises thou made, and the ■■■ and expectations, thou gave them and the rest of the settlers and inhabitants of this province, to enjoy the privileges derived from thy ■■■ grants and concessions, besides the rights and freedoms of England but how they were disappointed in several respects, appears, in part, by the said representation, to which we refer, and become supplicants for relief, not only in their *three* complained of which are not yet redressed, but also in things then omitted, as well as what have been lately transacted, to the great oppression of the queen's subjects and public scandal of this government."

"We are much concerned, that thou concerned such displeasure as thou did against that assembly, and not in all this time volensafe to show thy readiness to rectify those things, which they made appear were ■■■ have thou showed thy particular objection to the bills, which, with great care and charge were then prepared, for confirming thy charters to this city and country, respecting both privileges and property, and for settling the affirmation instead of oaths but on the other hand, we found, to our great disappointment, that thou gave credit to wrong insinuations against them, as appears by thy letter from Hyde-Park, dated the twenty-sixth of the twelfth month, 1764, wherein thou set some particulars very unjustly as follows: "That any just grounds, blamed the people's representatives, who, we perceive by thy proceedings, were ready to support the government under thy administration, and declined nothing but to have their just rights, privileges and properties confirmed, the judicature regularity established, the magistracy supplied with men of virtue and probity, and the whole constitution so framed, that the people called Quakers might have a share with other Christian people in the government, which thou always gave them an expectation of, and which they justly claim as a point of right, not for the sake of honour, but for the suppressing of vice, &c."

To wade through the whole of this provincial controversy, which, at several reprises, lasted till Gookin was superseded in the year 1717, and replaced by William Keith, Esq (afterward Sir William Keith, Bart) would be a task of great prolixity, and what consequently might prove ■■■ tedious to the reader as laborious to the writer.

Enough has been recited, to show upon what terms Mr. Penn ■■■ first followed by his flock, as a kind of patriarch, to Pennsylvania, as also, what failures ■■■ his conduct towards them were complained of by them; and as to the conduct of the ■■■ ■■■ ■■■, which, in the several periods of this in-

* The governor ■■■ rejected the bill proposed by the assembly for establishing ■■■ of justice ■■■ and ■■■ done it by an ordinance of his own.

print, acted the part of a second to him, be-
 ■■■ fatal to him ■■ it ■■ fortunate ■■

When the next assembly met, it soon ap-
 peared, that though the governor used the
 same patriot-language to it, he had not the
 same acendency over it. Two several ne-
 gatives ■■■ put, upon two several motions
 to furnish him, the first with six hundred
 pounds, the second with five hundred pounds,
 towards his support. No ■■■ than four hun-
 dred pounds could be obtained. and, with-
 standing all engines and all devices were ■■■
 employed, no farther compensation could be pro-
 cured for him.

It is equally the lot of this nation to be
 more specious than virtuous, ■■■ splendid
 than consistent, and ■■■ abundant ■■■ in politi-
 cians than philosophers. Keith had more of
 the former than the latter ■■ his composition,
 though he ■■■ neither in any eminent degree.
 A politician would not have furnished his ad-
 versaries with ■■ plea to excuse his removal,
 by communicating ■■ private paper to a popu-
 lar assembly. A philosopher, governed by
 principle, and proof against passion, would
 not have been in the power of any ■■■
 whatsoever: and if the assembly had been
 capable of consistency, they would have set
 ■■ centre on his dismission, by accompanying
 it with all the *douceurs* in the power of the
 province to have heaped upon him, that other
 governors might have thought it worth their
 while to proceed on his plan.

Instead of which, on the first intelligence
 of a new governor, which was as carefully
 imparted to them, as concealed from him,
 they even affected to procrastinate the busi-
 ness of the province; and when upbraided by
 Keith with this backwardness, and not with-
 out ■■■ mixture of indignation, required to
 give the public a testimonial of his adminis-
 tration, they proceeded ■■ it. ■■ if rather con-
 strained than inclined, and at last took care
 to say ■■ little as possible, though they had
 room to say ■■ much.

In short, after a nine year's administration,
 embarrassed with any ■■■ breach between
 the governor and assembly: and, as acknow-
 ledged by the latter, productive of much po-
 sitive good to the province, they parted with
 reciprocal coldness, if not disgust: Keith dis-
 daining ■■ follow Gookin's example ■■ de-
 serving ■■ benevolence; and they not having
 consideration enough left for him to offer it.

There ■■ no man, long or much
 in this overgrown city, who ■■■ not often
 found himself in company with the shades of
 departed governors, doomed ■■ wander
 the residue of their lives, ■■ of the agoniz-
 ing remembrance of their passed ■■■
 and the ■■■ of present neglect.

Sir William Keith, upon his return, was

* He staid in Philadelphia ■■■ after his being
 captured and reduced by the rebels, ■■■

added ■■ this unfortunate list; concerning
 whom the least that ■■■ he said, is, that either
 none but ■■■ of fortune shall be appointed to
 serve in such dignified offices or otherwise,
 that, for the honour of government itself, and
 as ■■■ recalled without any notorious imputa-
 tion on their conduct, should be preserved
 from that wretchedness and contempt which
 they have been but too frequently permitted
 ■■ fall into, for want even of a proper educa-
 tion.

The reader ■■ desired to pardon the
 digression, if it ■■■ It was necessary to
 show, that the province of Pennsylvania, when
 well governed, is easily governed: and that
 whichever branch of the legislature infringe
 the proprietary valours, ■■ interfere with
 the proprietary interests, the result is the same;
 the obnoxious assembly is reprimanded and
 vilified, and as before observed, the obnoxious
 governor ■■ recalled.

So that, unless the province were to be
 loaded with a triple tier of subordination, namely,
 one for the public service, ordinary and ex-
 traordinary, one for the governor's annual ap-
 pointments, and one for the gratification of
 the proprietaries and their creatures, it ■■
 reasonable to conclude it is never to enjoy
 any established state of tranquillity.

And now, in addition to the points of pro-
 prietary encroachment and proprietary re-
 sistentness already mentioned, we are natural-
 ly led to such other points of controversy, as at
 various times have arisen for want of suf-
 ficient foresight and sufficient preventatives,
 and of which several are unspeakably im-
 portunate at this very day.

It cannot but be recollected, that Mr Penn.
 in his discourse with his joint adventurers,
 concerning reserved rents for the support of
 government, made a remarkable distinction be-
 tween his two capacities of *proprietary* and
governor. and from hence, ■■ well as from
 the nature of the trust, it must obviously fol-
 low, that when he withdrew himself to Eng-
 land, and transferred the government to his
 deputies, those deputies could not but be pos-
 sessed of all the powers originally vested, by
 the crown, in him. Admit ■■ he was ■■ re-
 finements, he could not do by his trust as he
 ■■ by his land;—withhold a reserve of
 power, and, like the drunken sailor ■■ the
 play, appoint ■■ viceroy, and retain a power to
 be viceroy over him.

And yet even Mr. Penn himself ■■ his com-
 mission to Evans, ■■ as ■■ have seen,
 determined enough to push any proprietary,
 and defeat any popular point whatsoever,
 could venture to slip the following clause in-
 to his ■■■ to wit. "saving always ■■

to ■■ a part neither becoming ■■ prudent
 himself to be returned in an assembly, man-
 aging all the matters in his power to divide the
 ■■■ embarrass the governor and ■■■ pro-
 prietaries

me and my heirs, *was final assent* to *as thou shalt pass into laws in the said government, &c.*"

The assembly, however, to whom this commission was communicated, shewed enough to *the following doubt upon it, send it by way of message to the council, to wit: "whether the said is void in itself, and does vacate the of the commission render it invalid?"* And the council, with the proprietary's eldest son at the head, and secretary Logan at the of it, so startled at it, that, in order to evade the last inference, they themselves under necessity the following answer.

"We of the council, whose here subscribed, of opinion, that the *saving is void in itself: and that those which the present lieutenant-governor think fit to pass into laws, and the proprietary's great seal be affixed thereunto, cannot afterwards be vacated annulled by the proprietary, without of the bly of this province.*"

The next piece of practice, to the same purpose, that was found out, to impose certain conditions of government on the deputy, under the penalty of a certain sum. This was first submitted to by Keith, and has been a rule to all his with this difference, that whereas the penalty exacted from him was but one thousand pounds sterling, it has been since raised to two or three thousand pounds.

If over the case of this colony should come before parliament, which is not altogether probable, no doubt these conditions will be called for; and if they should then be found irreconcilable with the charter, and a check upon the legislative, altogether unconstitutional and illegal, the wisdom of the nation will, no doubt, pronounce upon such a trespass according to the heinousness of it.

Again: the widow Penn, in her private instructions to sir William Keith, having admitted and complained, that the powers of legislature were lodged the governor and assembly, without so much as a negative served the proprietary when absent, proceeded to avow, that it never intended [by the proprietary be understood] the said governor and assembly should have the of these powers; also pronounce it a dangerous invention of Keith's to laws in conjunction with the assembly, and transmit them directly to the king's ministers without any other check; and then, after thus arrogantly interposing between the king and his lieges of this province, clutches the whole with the following injunction: "therefore, for remedy of grievance, it is required, thou advise with council, upon every meeting or adjournment of the assembly, which requires any deliberation the

governor's part: that thou no speech, any written the assembly, shall be approved in council; thou receive from them in council, if practicable the time; to the house, without the advice of the council; any whatsoever into a law, without the consent of a majority of board, &c."

What, therefore, the governor's bond has not been sufficient to obtain, this new expedient was to extort. If the governor would not act as required, was thus to be disabled acting at all: after many various frames of government been granted and regranting, proprietary will and pleasure to be the last of all.

The vain both governor assembly freely and fully remonstrated against such an innovation, in a government supposed to be guarded by charter against innovations whatsoever; especially such were neither consistent with the rights of the people, the powers already vested in the governor, nor the respect due the crown.

Logan discovered the assembly were not authorized by charter to advise, though they were to enact; because the word *advice* to be found in that last given to them; that governors were to be trusted to act without advice: consequently the said expedient to bridle them a good one; and if we may judge by events, his sophistry has given the law since.

From what has been thus far recited, it is obvious, that the proprietary of Pennsylvania was of too little consideration here home. be of much to the province either as a protector or advocate; and yet, that he there so much above the level of his freemen and tenants, that, in their legislative capacity confederated with the governor, they could hardly maintain their rights they so many ways entitled to, against the artifices and of emissaries.

As lord of the soil, is the light he is next to be considered. The charter Mr. Penn obtained of the crown, comprehended a far greater extent of territory, than he thought fit to take up of the Indians his first purchase.

And in the very infancy of his colony, it was by act of assembly inconsiderately, because unconditionally, provided, in any person should presume buy land of the natives, within the limits of the province, &c. without leave first obtained from the proprietary, the bargain purchase so made should be void.

Rendered thus the only purchaser, he reckoned he might always accommodate himself at the Indian market, on the same terms, with what quantity of land he pleased; and till the stock in hand, or such parts of it as he

thought fit to dispose of were in a fair way of being sold off, he did not think it for ■■■■ to ■■■■ himself with more

This happened ■■■■ than he fore-saw though it ■■■■ be acknowledged the founders of few cities appear ■■■■ have had ■■■■ fire sight than he. The growth of his colony exceeded his ■■■■ sanguine expectations, and, when successive new purchases came to be made, an inconvenience by degrees became manifest, which, perhaps had not been thought of before, or if thought of, had not been guarded against.

Men who want a present convenience must not be over-solicitous about future contingencies and, in general, we choose to be blind to such objects as we fear we have ■■■■ strength enough to remove. He that ■■■■ too much of a huckster often loses a bargain as he that ■■■■ little is often purchased a law-suit.

It ■■■■ a hard matter ■■■■ induce a belief, that occasional treaties with the Indians under the pretence of keeping up the ■■■■ brotherly correspondence which had been at first established with them was a necessary ■■■■ sure of government not to prevail with the province, while this was understood ■■■■ be the sole consideration, to bear the expense of them.

But when it appeared as in the course of time ■■■■ undeniable that a treaty and a purchase went on together that the former was ■■■■ a losing term for the latter, that the governor only made the complaints and ■■■■ assembly the present. It is evident that it appears also, that there must be somewhat unfair in a procedure where one paid all the cost, and the other enjoyed all the profit and that ■■■■ was high time to put a stop to ■■■■ practice so injurious to their understanding.

It is indeed ■■■■ in private life a bargain, that those who purchase for their own ■■■■ and advantage should pay the price out of their ■■■■ pocket, & not in public it is.

Persons who stand on the ■■■■ ground will insist on the same rights and it is matter of wonder when any one party discovers fully or insouciance enough to demand respect any pre-eminence over the other.

Whereas prerogatives admit of no equality, and presupposes that difference of place allows the use of language, and even the very nature of things.

Hence, though protection is the reason and, consequently should be the end of government, ■■■■ ought to be ■■■■ much upon ■■■■ guard against our protectors as against our enemies.

Power, like water, ■■■■ ever seeking its own way, and wherever ■■■■ can find or make ■■■■ opening, ■■■■ altogether ■■■■ prone to overflow whatever ■■■■ subject to it.

And though matter of right overlooked

may be reclaimed and re-assumed at ■■■■ time, ■■■■ cannot be too soon reclaimed and re-assumed.

That assembly then, which first discovered this lapse, or which at the requisition of their constituents, first endeavoured to retrieve ■■■■ no more than the duty and the precedent they set cannot be too closely followed.

Again the distinction made by Mr Penn in the case of the quit rents between his two capacities of governor and proprietor had an use which even he with all his shrewdness did not perhaps advert to when it was made or at least expect ■■■■ would be adverted to by any body else.

For the support of the governor and government it must be recollected they were submitted to for the support of the proprietary when absent from his government and when the government charge was otherwise supported they were paid and all his agents went on not only to reserve such rents out of all the parcels of lands they disposed of but even to rise in their demands as the value of lands rose so it could not but follow that ■■■■ process of time these quit rents would themselves become ■■■■ immense estate.

When therefore the proprietary ■■■■ longer acted as governor ■■■■ even loaded ■■■■ the province ■■■■ expended a fifth of his income there could it be supposed that this title ■■■■ could any more properly be an original purpose should not be liable in conjunction with all other estates to contribute to those charges it was first ■■■■ the entire allot and for and the whole amount of which it ■■■■ sold exceeded.

The property in England is tax free no difference in the amount or value of property makes any difference in the duty of subjects and nothing is more consonant to reason than that he who possesses most should contribute most to the public service.

And yet for want of a specific clause to declare their property taxable the present proprietaries insist ■■■■ having it exempted from every public obligation, and upon charge ■■■■ the difference on the public who ■■■■ can ■■■■ be too often remembered give ■■■■ in the first instance as the price of an exemption from all other taxes.

Clear however it will be made to every unprejudiced mind that such a specific clause neither is ■■■■ ever was necessary and that ■■■■ virtue of the inherent right ■■■■ will ■■■■ the power and authority reserved in the freemen to tax themselves by ways and means of their own providing all the property of the province has indiscriminately at their discretion subjected to an equal taxation.

The paper currency of the province is ■■■■ to be mentioned and as that was out of pro-

pect while the several *frames* of government were under consideration, it could be comprehended any of them

The currency then was, and so continued to be, for many years after, gold and silver of any species by weight; at first in so regular a manner, and at such uncertain rates, gave the crafty many opportunities to prey upon the ignorant and necessitous, consequently was productive of much contention, embarrassment, and confusion

By royal proclamation, in the fourth of queen Anne, the rates and values of all foreign current the English colonies were limited and ascertained, and, in her sixth, the contents of the said proclamation were enacted a law, which is still in force.

But the annual influx of these foreign coins, through what channel soever, or from whatever source, by no answered the demand of an annual issue

From England came all the manufactures consumed the plantations, and all the returns they could make by their commodities sent thither directly, or the product of them at other markets, fell far short of the balance growing against them

The defect, therefore, was to be made good in gold and silver, and was so as long as often any could be found Every colony, in turn, was, consequently, drained of its specie; and, as it is an impossibility known and avowed, for any trading community to subsist without some medium of circulation, every colony in its turn was obliged to have recourse to the same expedient of uttering provincial bills of credit, and making them answer, as far as possible, all the topical purposes of gold and silver, by which their several capitals were enlarged; the gold and silver became commodities that could be spared for exportation; and the merchants at home were paid that gold and silver, without any provincial detriment.

Pennsylvania, however, if not the very last, was one of the last, which gave into It not till the year 1722 (Keith, governor) that they made their first experiment; and then they proceeded with the utmost caution and circumspection, in every step they took.

Knowing, for example, that the danger of depreciation the only danger they had to guard against, and that nothing but an over quantity, defect of solid security, and of proper provision recall and cancel them, could that danger, they issued first but fifty thousand pounds; they made no loans but on land security or plate deposited in the loan-office: they obliged the borrower to pay five per cent. for the they took up; they made their bills a tender all payments of kinds, on of vacating the debt, or forfeiting the commodity, to keep them as near

as possible on a par with gold and silver, they imposed sufficient penalties on all those who presumed to make any bargain sale upon cheaper terms, in of being paid in the one preferable to the other: they provided for the gradual reduction of them, by enacting, that one eighth of the principal, well the whole great money, should be annually paid. And was not till they were convinced by experience of the utility of the measure, and the insufficiency of the sum, that they adventured to issue thirty thousand pounds more

Such, moreover, the benefit apparently resulting from it, such the inconvenience apprehended by every body from the scarcity money sure to follow a too precipitate charge of the loan; and such the apparent growth of the province during this interval, that, in the year 1729 (Patrick Gordon, governor) it thought advisable to increase the provincial capital by a new emission of bills, to the amount of thirty thousand pounds, and to render the repayments still easier to the borrowers, by reducing them to one sixteenth a year.

Again, in the year 1730 (George Thomas, governor) occasion was taken from the discoveries repeatedly made, that these provincial bills been counterfeited, not only to call them all in, in order to their being replaced with others of a new impression, &c. but also for the reasons before given, to issue the further of eleven thousand one hundred and pounds five shillings, (which, added to the sum already in circulation, made their whole capital amount to eighty thousand pounds) to be current for sixteen years.

Lastly, finding, that the like, or a greater, in case the province should grow still greater, would in all probability be always necessary, the assembly moreover provided, that as fast as any of the former borrowers should repay their provincial money, the trustees of the loan-office might re-emit the same sums during the said term of sixteen years on the conditions, either to them or others, without any authority for that purpose

And, upon the whole, it is to be observed, that the assembly, in establishing this paper currency, taking upon themselves, representatives of the province, appoint the trustees and other officers charged with the administration of it; in providing that the said trustees and officers should be responsible to the province for their conduct in it; and in reserving to the assembly, for the time being the disposition and application of the annual product, met not with any such objection from their governors, or the proprietaries, or the ministry here at home, could excite the apprehension of any such contest, might either embolden the province, affect the interest, or incommode the government of it.

It is true, the proprietaries and their agents did, from the beginning, discover a repugnance to this measure, till they found themselves considered in it; like the snail with his horns, they had no [] for the province, [] what reached them through the nerves of power and profit. Profit, though ranked last, they consulted first, and when possessed of one point, they thought they might wrangle more successfully for the other.

If the widow Penn acquiesced in the paper-money [] passed by Keith, she reprimanded him for passing them; and [] him to [] any more.

Gordon (Keith's successor) having over and over again acknowledged his conviction of the inconveniences arising [] the province from a reasonable [] of their paper currency, gave the assembly to understand, in [] many words, that nothing but the gratification of the proprietaries in the affair of their quit-rents, would prevent the opposition they were otherwise [] expect to the [] then before them in England.

By special contract with the several purchasers, these quit-rents of theirs were to be paid in sterling money; and, as it was impossible, by any provision whatsoever, to make the provincial currency answer the universal purpose [] of gold and silver, [] no provision could hinder these metals from having the preference of paper. To convert paper into specie [] bullion could [] of course but be attended with some cost; and hence the proprietary-remittances could not but come shorter home. When, therefore, by the eighty thousand pounds act, paper [] to become the provincial establishment, they would [] allow their share of the provincial advantage resulting from [] (which was, at least, equal to that of the province, as will hereafter become apparent) [] be what [] really was, an adequate consideration, but [] not only [] having the difference between paper and [] of bullion made up [] them, and that the difference of exchange should be made up to them also; or, in other words, that the pound sterling due to them in Pennsylvania, should be paid to them *net* in England.

In short, the [] of one thousand two hundred pounds [] in this manner extorted from the province, together with an annuity of one hundred and thirty pounds, to continue during the circulation of those bills, which will [] show, at least, that the province could not be [] stubborn, upon other pretences, [] the proprietaries [] selfish on this.

There remains yet another topic to be touched upon, which will require a [] tender consideration from the reader than perhaps it [] always find.

Mr. Penn [] his followers were of [] sect, who call themselves by the amiable [] levelling [] of Friends, and who having

been [] first opprobriously called by that of *quakers*, have been forced, by the joint tyranny of imposition and custom, to [] to [] since.

Of these, the majority carried along with them a scruple better accommodated to the forming of a society and preserving it [] peace, [] to the protecting it from those insults and depredations which pride and lust of dominion have [] periods committed on their weaker neighbours, and from the visitation of a hack, no system of politics, moral- or religion, hath [] yet been able to preserve mankind.

All their views, purposes, and endeavours were narrowed, therefore, to the forms and uses of civil life, and to look the several parts of their own little community [] the most expedient [] together.

Nor, indeed, had they at that time any other object before them, all to [] was against any power in alliance with England, and to correspond with any power at war with her, was expressly forbidden to the *proprietary* and the *province*, by the fifteenth section of the royal charter.

The French were too feeble in America and too remote from Pennsylvania, to be apprehended. The provinces adjacent were branches from the same root, and responsible for their conduct to the same law, and the Indians, from the very beginning, had been considered and treated [] equally the [] of one common father.

Land wanted by us was a drug to them. The province, then to be allotted, peopled, and cultivated, had not been wrested from them by violence, but purchased for a suitable consideration. In the contract between the proprietary and his sub-adventurer, all possible [] had been taken that no cause of mortification should be administered to them in trade; they were not to be overreached [] imposed upon in their persons; they were not to be insulted or abused, and, in case of any complaint [] either side, the subject-matter was to be heard by the magistrates in concert with the Indian chief, and decided by a mixed jury of Indians and planters.

The same regard to conscience which led them into this wilderness, adhered to them afterwards; and having thus resolved and [] ruled, never to be aggressors, and not being sovereigns, they left the rest to Providence.

Governed by principle in all things, and believing the [] of [] to be unlawful, the case of defence by [] could not come within their plan.

[] then [] their community was [] open [] Christians of all persuasions, and the conditions of union could be abhorrent to none, they might well presume [] being joined by numbers, which [] since happened accordingly, who, being devoid of such scruples,

might easily induce, for proper considerations, to that difficulty out of their hands; and, in military service, under all English tenures whatsoever, no person could be compelled to serve by proxy.

Add to all this, that William Penn himself does not appear to have been under the dominion of these scruples, he having taken in his charter from the crown (sect. 10) to invest with all the power ever bestowed on a captain-general (which also to descend to his heirs and assigns) "to levy, muster, and train all sorts of men, of what condition soever, or where-soever born, to make war and to pursue such enemies as should make incursions into the province, with by sea or land, even without the limits of the said province, and, by God's assistance, to vanquish and take them," &c.

And, lastly, if ever involved in the quarrel of the mother-country, and obliged to take their share of the duty and the common danger, they might reasonably hope for all the protection from thence they might stand in need of, on the condition of contributing all that in their power consistent with their principles, towards it.

This they have occasionally done from 1681 to 1740, and they would have done more, if the proprietary calls and those of their deputies had not put out of their power.

Allowing, therefore, that the unrevoking principle would have been a solecism in the construction of an independent state, it was not, provincially speaking, destitute of proper palliatives.

At least, scruple of conscience is in all times, and in all cases, less blameable than the wanton experiments tried upon the province, even by the proprietary's agents; first, scatter terrors among the peaceable inhabitants, and then to plead the necessity of military force from the effects of their wicked devices.

Of this nature was the false alarm raised in the queen's time by Evans and Logan, a fact which stands charged against them, in the records of the assembly, at this very day, and which, as often recollected, will ever suggest a fear, that a measure, so unwarrantably contended for, would, if obtained, be as unwarrantably made use of.

We have such a summary of the state of Pennsylvania, from its origin, before us, as may clearly show every branch of the controversy still depending, familiar to us, and the facts are best understood in order of time they occurred, we shall do our best to follow the thread it lies.

In April, 1740, when the paper currency of the province had been just increased, as above specified, to eighty thousand pounds, and

established for sixteen years, the merchants trading to the eastern colonies of America, took occasion to complain to the house of commons, of the inconveniences and discouragements brought on the commerce of Great Britain in those parts, by the excessive quantities of paper money there issued, and the depreciated condition thereof, for want of proper funds to support its credit. The house, by way of palliative, addressed the throne to put a temporary stop to the evil, by instructing the several governors, not to give their assent to any farther laws of that nature, without an express proviso, that they should not take effect till his majesty's approbation had been first obtained.

Such instructions were accordingly sent, and those to the governor of Pennsylvania were dated August 21, 1740. Notwithstanding which, the lords of trade and plantations (having already in their hands a full and clear account of the currency, as established by the eighty thousand pounds act, and also of the rates of gold and silver from the year 1700 to the year 1739, and having been convinced, by the merchants trading to that province, that such a sum was not only reasonable but necessary for carrying on the commerce of the country) thought fit to recommend the said act, to the royal assent and ratification, and six days afterwards the lords justices passed it into a law.

Here the affair slept for several years, except that the assembly, in conformity to an order, which accompanied the instructions just mentioned, caused a second state of their currency to be transmitted the following year to the lords of trade; and before it was again transmitted in parliament, the several incidents next to be related, took place.

When the attempt upon Carthage was under consideration, the northern colonies were called upon to furnish soldiers for the service, and Pennsylvania among the rest. The assembly at that time composed as it had hitherto generally been, consequently this demand could not but be productive of scruples and difficulties in point of conscience; that, however, they might discharge all obligations at once, they voted four thousand pounds for the king's service, and the governor took upon himself to employ the soldiers.

This was a duty of office, and, if he had discharged it properly, what would have given universal satisfaction. The labour of the plantations is performed chiefly by indentured servants, brought from Great Britain, Ireland, and Germany; nor, because of the high price it bears, can it be performed any other way. These servants are purchased of the captains, who bring them, the purchaser, by a positive law, has a legal property in them during the term they are bound for; can sell or bequeath them; and, like other chattels, they are liable

ble to be seized for debts. Out of these, nevertheless, did the governor make his levies. A ferment ensued: the [redacted] were tenacious of their rights: the governor stood upon prerogative [redacted] paramount [redacted] all: the dispute was brought into the courts; and such was the terror of power, that the aggrieved was forced to repair to New York for advocates.

The assembly, [redacted] no other remedy, thought themselves bound to defend the rights of their constituents; and did defend them accordingly, by refusing [redacted] part with their supply, unless these servants [redacted] unjustly taken from their masters were restored. The governor was obstinate, and [redacted] the money was, at last, applied, as [redacted] ought, to indemnify them for the injury they had sustained.

That, however, they might not be misrepresented or misunderstood at home, as deficient in zeal for the public, or backward to contribute to the service, they [redacted] the next year to the following vote, to wit. "The house, taking into consideration the many taxes their fellow-subjects in Great Britain are obliged to pay towards supporting the dignity of the crown, and defraying the necessary, and contingent charges of government, and willing to demonstrate the fidelity, loyalty, and affection of the inhabitants of this province to our gracious sovereign, by bearing a share of the burden of our fellow-subjects, [redacted] proportionally to our circumstances, do therefore, cheerfully and unanimously resolve, that three thousand pounds be paid for the use of the king, his heirs and successors, to be applied to such uses as he in his royal wisdom shall think fit to direct and appoint." And the said three thousand pounds were afterwards paid into his majesty's exchequer by the agent of the province accordingly. A free gift, if ever there [redacted] one, from subject [redacted] sovereign, and, however small, a sufficient voucher for the good intentions of those who made it.

In the beginning of the year 1743, the project against Louisburgh, having been carried in the assembly of New England by a single vote only, was imparted to the assembly of Pennsylvania by governor Shirley, with a desire, that they would contribute thereto. but though they could not [redacted] prevailed [redacted] to take any part in [redacted] enterprise which to them appeared [redacted] desperate, they voted four thousand pounds in provisions, for the refreshment and support of the brave troops who had taken the place, [redacted] [redacted] it [redacted] known they were in possession of it, and that such supplies were wanting.

In the beginning of the year 1746, the [redacted] ministers affected to entertain [redacted] project [redacted] the reduction of Canada. By letters from the secretary's office, dated April 6, the northern colonies were severally called upon to [redacted] tribute their respective quotas towards it;

which they cheerfully concurred [redacted] doing, seduced by their [redacted] and their inclinations into a belief, that the whole line of [redacted] colonies would not be thus agitated, [redacted] their Indian allies induced [redacted] take up the hatchet in conjunction with them, merely by way of pretext to facilitate [redacted] peace.

Forces [redacted] every where raised by the several governors, and the assembly of Pennsylvania voted five thousand pounds for the king's use, or, in other words, [redacted] their contingent for this pretended national service. The money so voted being [redacted] than they [redacted] could furnish, they proposed [redacted] raise it by [redacted] addition of the like [redacted] to their paper currency, [redacted] which case the king would be served, the provincial capital would be so far enlarged, and the interest arising from it would, in a due proportion of time, discharge the principal.

And here began the first dispute between the governor and the assembly on this topic. The governor pleaded the instruction of 1740 as a reason, why he could not bring himself to such [redacted] pitch of boldness as he apprehended [redacted] necessary to the contravention of it; and therefore urged them to find out some method less exceptionable for raising the said sum, and they, willing to comply as far [redacted] possible with his scruples, so far receded from their point to that time as to draw it out of the money dormant in the loan-office for exchanging torn and illegible bills, and [redacted] replace it by a new emission of bills to the same amount to [redacted] sunk out of the product of the excise [redacted] ten years. Upon which the governor waved the instruction, and passed the bill; five hundred men were raised and supported by it, for near eighteen months, employed chiefly [redacted] defending the frontier of New York. [redacted] the expedition at length was dropped and the troops disbanded.

A formal bill to restrain the northern colonies in general, from issuing paper bills of credit, it must be observed had been brought into parliament, but not perfected; and [redacted] the year 1748 again; upon which occasion the next governor of Pennsylvania, James Hamilton, Esq.; in a message to the assembly in October 1749, made use of the following remarkable expressions: "I take it for granted, we [redacted] all sensible of the mischievous tendency of the bill that was brought into parliament the last year, to regulate and restrain paper bills of credit [redacted] the plantations (in which there [redacted] a clause to enforce the orders of the crown [redacted] his majesty's American dominions) and it [redacted] not improbable, that [redacted] thing of the same kind may be offered [redacted] the ensuing session. I persuade myself you will give your agent full instructions upon this subject, in [redacted] it should become necessary for him to oppose it. the honourable proprietors [redacted] at that time laboured and with success

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to avert the mischiefs that threatened this province from the passing of the said bill; and I have it in command from them to assure you of their assistance upon all future sions, wherein the welfare and happiness of the people of this province may be concerned."

This had a favourable appearance towards the province, and from hence it might well be supposed, that the issues from this source would productive of any deep or lasting strife.

 though the springs had not yet broke out with any violence, they were working their way under ground. The growing charge of Indian affairs, which lay wholly on the province, and which, the head of purchases, as before explained, productive of great advantages to the proprietaries, began to be the subject of public complaint: and by these suggestions of the importance of the proprietaries home, the people were be taught the danger of disobliging them.

But if this their view, it did not answer: the assembly had too much discernment to be diverted from the object before them by the interposition of another, how dextrously the trick was performed, and therefore proceeded, notwithstanding, to take this affair consideration.

It is scarce necessary to intimate, that the governor, and the creatures of the government, did all they could, not only to discourage them in it, but also to convince them, in effect, that, according to the usual of the world, all advantages are the prerogative of those above, and all burdens the inheritance of those below.—This may indeed be agreeable to the usual current of the world: but then as such doctrines not over palatable anywhere, so in a free like Pennsylvania, it was not to be thought they would be swallowed at all. They neither be convinced discouraged it on the contrary, they persevered; they examined; they reported; they resolved; and at last applied the proprietaries, to do what equity required, by taking a share of the charge upon themselves.

The proprietaries, 'ne other hand, nounced in their reply, "that they did not conceive themselves to be under any such obligation, even though the people had been taxed the charges of government: that not one shilling had been levied on the people for that service, it was so much reasonable in the people to ask thing of them: that they had, notwithstanding, charged themselves with paying their interpreter even much more than could be due to him on their account, and were also then the expense of maintaining his son with a tutor in the country, learn their language service of the country; well as of sundry other charges on Indian af-

fairs; that they had been considerable expense for the service of the province both England and there: that they pay the Indians the land they purchase: and that they are no more obliged contribute to the public charges than any other chief governor of any other colony."

In answer to this, the assembly, May 1751, respectfully represented, "that the preserving a good understanding with the Indians for the interest of the proprietary estate than that of any other in the province, it gave the proprietaries opportunity of purchasing lands on the frontiers at a low price, and selling them at a high one, which would otherwise be impracticable: that, therefore, the obligations of justice and equity being stronger than those of law, they were certainly bound by them to contribute the expense of those treaties and presents by which the good understanding beneficial to them maintained; that though taxes in form, for the immediate support of the proprietaries' substitute, and for defraying the charges of these Indian treaties, had of late years been imposed on the province, the charge of all (by the interest of the paper-money, which was a virtual tax, the excise, which was a real one, producing about per annum, and the arising from licenses of various kinds, amounting yearly to a sum not inconsiderable, appropriated wholly to the governor's support,) was paid by the province: that the had always paid the Indian interpreter for his public services to his full satisfaction: that they believed future assemblies would not fail do whatever could be reasonably expected from them in regard to his son, when he should be qualified to succeed him; as also to discharge all just debts for expenses properly chargeable to the province, whether incurred there or in England, whenever the accounts should be exhibited, that by the act forbidding all but the proprietaries to purchase lands of the Indians, they obtained a monopoly of the soil, consequently ought to bear the whole charge of every treaty for such purchases, the profit to be wholly theirs: that their paying land (bought as was conceived much cheaper on account of the provincial presents accompanying those treaties) not a satisfactory reason, why they should bear a part of the charge of such other treaties as tended the common welfare peace of the province: and that upon the whole, as the interests of the proprietaries constantly intermixed, more less, with those of the province, in all Indian treaties, and as it appeared the proprietaries thought they paid more than their share, while the people thought they paid abundantly too much, they apprehended the way prevent dissension on all sides, would be to fix a certain

proportion of the charge of all future provincial treaties with the Indians, to be paid by the proprietaries in the province respectively. which, not only was a proposal equitable in itself, but conducive also to preserve that union and harmony between the proprietaries and people, so evidently advantageous to both, they hoped, would, on further consideration, be agreed to."

How this was received we shall see in its place.

The assembly proceeded after, to take into consideration the growth of the province, and the state of their commerce; and finding both to be such as required an extension of their paper-currency, on the same grounds and for the same ends, they first gave rise to it, unanimously resolved to strike out additional sums of twenty thousand pounds, to order the replacement of defective bills, and increase the provincial capital, in proportion to the increase of inhabitants; and also to re-emit and continue the same already in circulation.

A bill was accordingly prepared in January, 1758, and sent up to the governor (Hamilton), for his concurrence: but though that gentleman was a native of the province, with rather better qualifications for his post, and as may be supposed, more affection for the people than is common with governors, he had his reason for not seeing this provincial mint in the same light that the province did, and therefore returned the bill a day or two, with his negative upon it qualified, and with expressions of concern for his countrymen in opinion with them, but founded in the dislike raised in Britain by the late too general and undistinguishing complaints against the plantation bills of credit, which rendered the time very unreasonable for any application to the crown concerning the extension or re-issuance of theirs. and fortified by a caveat, which sounded so much the more plausible, as it seemed to be drawn from their own premises, namely, that the many advantages they derived from the use of paper-money ought to make them extremely careful, not to take any step which might possibly endanger it.

The assembly, on the other hand, gladly tasted an acknowledgment in express favour of the thing; and, from the same sense of it, declared themselves to be equally careful with the governor in the conduct and direction of it: but having done, they went on to say, "that as they did not think the dislike raised in Britain of the plantation bills, so general and undistinguishing, or so warmly substantiated as the governor seemed to apprehend, neither did they think the time to be unreasonable for an application to the crown about them: that they were equally concerned with the governor for their difference of opinion, and that they might not

seem to act too precipitately in an affair of such importance, they chose to make a short adjournment before they took his objection into consideration."

Adjourn they did accordingly: and at their next meeting, which was towards the end of May the same year, found themselves necessarily pressed by a message from the governor, on one hand concerning Indian affairs, and on the other by petitions from a considerable number of inhabitants, for a further addition to their paper-money, supported by a variety of allegations of the most interesting and affecting nature.

The governor's message, whether prearranged or not will best appear from the sequel, prepared the house to expect, "that the country of Allegheny situate on the waters of the Ohio, partly within the limits of Pennsylvania, partly within those of Virginia, already was or soon would be invaded by an army of French and Indians from Canada: in which case the Indians inhabiting there, who were a mixture of the Six Nations, Shawanese, Delaware, and Tawagrees, lately recommended as allies to the province by the said Six Nations, would be obliged to leave the country, and his majesty's subjects trading with them would be cut off, &c. unless timely warned by the messengers sent to them by himself for that purpose that Montour, an interpreter, had heard the French declaration delivered, and the reply of the Indians, which was firm and resolute, but not to be relied upon as they were in want of all things." No far was want of intelligence. The rest was a pathetic representation of dangers and mischiefs to be apprehended on their own frontiers, and exhortations to enable him to give the Indians assistance answerable to their emergencies.

And upon the heels of this message, the governor also communicated to them the answer of the proprietaries to the representation of the assembly above exhibited, and which if purposely calculated to divide the province and inflame the animosities already kindled, could not have been better framed or better timed for those fatal purposes.

Professors of attachment to the true and real interest of the province, of sparing cost or pains whenever it should appear to them necessary to advance it, and acting such a part in considering the matter of the representation as all disinterested persons should think just, they set out with and, having made this ground for themselves, they proceeded to charge the assembly with being actuated by ill will to them on one hand, and a desire to ingratiate themselves with the weaker part of the electors on the other. In the next paragraph they say, after we ordered our governor to give you the answer which he did, to your former application, we

had no reason to expect a repetition of the application directly to ourselves, you might well suppose had considered the matter before had returned answer, the repeating the request could only produce the repeating the answer, the occasion which does not appear to be. It is possible, that purpose may be in order to show more publicly this difference in opinion between us and yourselves; if that was ever intended, it will be convenient should set this matter in clear light (although it may make our longer than we could wish) that the true of the matter may appear."

They then the authority of the of trade, in justification of their former tion, that they no obliged to contribute to the public charges, than the chief governor of any other colony: they will allow that their honoured father had any assistance from the people in making his purchases, that there is the least colour for pressing them unseasonably contribute to the public charge, seeing that the said charge did not much exceed half of the revenue;—and they not only return to their first charge, that the assembly by so doing, could only mean to captivate the weakest of the people, and so by their assistance continue to hold their in the assembly, but farther, as many proofs, the time of making their first representation, which was just before an election: their printing the report and most extraordinary resolutions on which the said representation was founded, which seemed to argue it was rather intended as an address to them the said populace, than to the proprietaries, and the solemn repetition of the request as if it a matter of great value and importance.

Take the next article in their own words. "Wherefore, on this occasion, it is necessary that should inform the people, through yourselves their representatives, that, as by the constitution, consent is necessary to their laws, the same that they have no doubted right such as are necessary for the defence and real service of the country; so, it will tend the better to facilitate the several matters which must be transacted with us, for their representatives to show regard to us and our interest: for, considering the rank which the crown has been pleased to give us in Pennsylvania, we expect from the people's representatives on occasions, a treatment suitable thereto; and that desire to govern the province according to law only, they should be as careful to support our interests, shall always be to support theirs."

Recurring again the revenue, they affected to be truly concerned being obliged to acquaint the public with state of it, settle that six thousand pounds a year.

arising from the and the provincial again assert, the annual expense of government for a series of years including Indian charges, amounts little more than half that and of this revenue, about four hundred pounds a year only has, on an average, for twenty years past (and great part of that time during war) been expended in presents to the Indians and charges on that account, which they could not conceive to be a large sum, compared with that revenue, the of its being raised, and so important a service as that of keeping the united nations of in the interest of Great Britain.

They then talk of the taxes paid by their family here at home, as an equivalent to the Indian article; and then proceed in the following remarkable terms. "And at the time that show you that do pay all other taxes here, that on land only excepted, we must advise you to be very careful not to put people here in mind of that signal exemption. Several proposals have been made for laying North America, and it is most easy to foresee, that the self-same act of parliament that shall lay them on our, will also lay them on your estates, and on those of your constituents."

In the next article, having denied that the assembly had always paid the interpreter satisfaction, and insisted that they themselves gratified him when the assembly had refused to pay him what he thought his services deserved; they add, in a higher tone. "however, with respect to any expense of that sort, and many others here, we entered them without any expectation of being repaid, and should think it far beneath us to send the accounts of them to the house of representatives, your agents employed by yourselves might do, for the expenses incurred by them."

Proceeding in the style, they say in the next article, "we do conceive that any act of assembly does, can establish what you call a monopoly in for the purchase of lands: derive no right or property from any such law: it is und the king's royal charter that have the sole right to make such purchases," &c.

It is the last five articles should be inserted entire; and they are verbatim as follows, viz.

"12. Your assertion, that treaties for land are made at a expense to us on of provincial presents being given the same time, does appear to us to be founded fact: the last purchase was made on no other account, but purely to save the province the expense of making another present to some Indians, who down the time that the principle deputation had received the presents intended for the whole, and were on

their return back: the land bought very dear on that account, other treaties for land have been made when provincial pre- have been given; do not or even did desire that the inhabitants should bear any part of expense of Indiana, who down solely at our request to consent to the sale of lands, unless they stay on other public business also; and whenever they have down both accounts, we are sensible the expense has been divided in a manner very favourable to the public.

"13. We are far from desiring to avoid contributing to any public expense which we should bear a part of, although our estate is not, by law, liable to be taxed. As have already been, doubt not shall always be, at a far greater expense in the affairs of the province, than our could taxed at, if all the estates in the province rated to the public charges, which would be the only fair way of establishing a proportion. If we were willing to consent any such matter, the value of our estate, and of the estates of all the inhabitants, ought be considered, and the whole expense proportionably laid upon the whole value; which you will find, that the expense which voluntarily submit to, out of affection to the inhabitants, is much more than such our proportion so laid would be: besides these general expenses, the first of us at his own charge, the of above four hundred pounds sterling, for the defence of our city of Philadelphia, neglected by late house of representatives; which, alone, in such a sum the proportion of a tax on our would not in many years amount to. And, this is the case. we not disposed to enter into any agreement with the house of representatives for payment of any particular proportion of Indian other public expense, but shall leave to them (to whom it of right belongs) to provide for such expense, they shall judge necessary for the public service.

"14. As you appear willing on your parts, to ease your constituents of small part of the Indian's expense, by throwing it upon us, shall, on our part, and hereby do recommend it to you to give them a real and far greater relief, by taking off a large share of that only tax which is borne by them. As the general expense amounts little than three thousand pounds a year, conceive it may very well provided for of the interest of paper-money, and one half of the present excise: especially we shall be induced, from the state of your trade (which we expect to receive) to an increase of your paper-currency; this would ease inhabitants of fifteen hundred pounds a year, which felt by many of them, when they

be sensible of the trifle you propose we contribute to the public expense. We have directed the governor to consent to such a law when you think fit to present it to him.

"15. As shall ever, in the first place, endeavour promote the real interests of the good people of Pennsylvania, we make no doubt of preserving an and harmony between us and them, unless men of warm or uneasy spirits should unhappily procure themselves to be elected for representatives, and should, for the supporting of their private views, or interests, influence their brethren, otherwise honest and well-disposing, expose their in such case indeed, disputes may arise, wherein we shall engage with the reluctance: but even then, we shall make the general good the rule of actions, shall, on all such occasions, if ever they should happen, steadily, and without wavering, pursue measures the most likely to conduce to that good end.

"16. The representatives being annually chosen, we are aware that are not writing now to the persons who sent the representation to us; the most forward to push on a (which, from the answer, directed our governor to give to the former application he was desired to make to us, be supposed disagreeable) may not now be the house, but may be succeeded by more prudent persons returned for their places, who would be careful not to press a matter too far, in which the rights of the people are not really concerned: however, the answer we give must be to the representation. And we desire, in any matter of the like nature, that the house will be satisfied with such as the governor may have orders to give on our behalf.

"THOMAS PENN.
"RICHARD PENN."

the temperate assembly was before the reading of this ungracious paper, it was but equal to expect, they would have taken fire immediately, and proceeded at to their justification.

But, much to the honour of their prudence, they took a different method. They ordered it to on the table, together with their own votes, report, representation, &c. alluded to in it; and returning to the two points already before them, resolved to clear their way, by despatching them first.

These, it will be remembered, were the currency-bill, returned the house by the governor before their adjournment, with gative, the governor's with respect to the resolution of the Indians with-stand the French, in case they should be vaded by them the Ohio.

They had also under consideration several new despatches from their agent here home.

and also the account of the value of their imports from hence; which for the year 1750 in two hundred and thirty-eight thousand six hundred and thirty-seven pounds two shillings and ten pence. For the year 1751, two hundred and seventeen thousand seven hundred and thirteen pounds and ten pence. And for the year 1751, one hundred and ninety thousand one hundred and one pounds five shillings and one penny. Whence it was apparent, that for want of a sufficient currency, we invigorate the industry, and supply the wants of the province, the imports from hence are a gradual declension. And after mature deliberation on the whole matter, they again sent up their bill to the governor with the following message, viz.

' May it please the Governor.

"The governor's apprehension, at our last sitting, that the dislike raised in Great Britain of the bills of credit in the plantations, by the late too general and undistinguishing complaints, so warmly subverted, as to make any application to the crown about our currency at that time unreasonable, induced the house, notwithstanding their different sentiments, to make a short adjournment, to consider farther of the weight of that objection; and also of the sums by that bill proposed to be made, and continued current in this province. And now, when we reflect, that though the complaints against a paper-currency, arising from the excesses of some colonies therein, were indeed at first too general and undistinguishing, so as to occasion the bringing into parliament a bill for restraining the same in all the colonies: yet, upon strict inquiry (as some of our currency then lying before them) the parliament thought fit to alter the bill, and lay the restraint only on those colonies where that currency had been abused, we cannot but be on this distinguishing in our favour; especially as we are assured, that the complaints made of our currency by the British merchants trading hither, who only could be affected by it, but that on the contrary they have, whenever called upon for their opinion, by the parliament or the lords of trade, appeared openly and warmly in our favour, and declared (as they did in 1750, when our act for eighty thousand pounds, present sum, was under consideration) that it was not only a reasonable but absolutely necessary for carrying on the business of the country; which appears by the report of the said lords, on that occasion to the council. And as the exports from Britain in this province, of which we have authentic accounts, were then, in the three preceding years, amounted to more than one hundred and seventy-nine thousand six hundred and fifty-four pounds nine shillings and two pence sterling; and now in the years 1749, 1750, and 1751, they amount

to six hundred and forty-seven thousand three hundred and seventeen pounds eight shillings and nine pence sterling; and our numbers of people, and domestic trade, and the occasions for a medium of commerce, are equally increased, there cannot, we think, be any doubt, that the British merchants will likewise be of opinion, that the small addition we now present propose is absolutely necessary, though they may not think it so suitable to the circumstances as a larger sum; one hundred thousand pounds of paper-currency bearing by no means the same proportion to our trade now, as eighty thousand pounds did then. And it is certain, that, as the money circulating among us diminishes, must our trade and usefulness to Great Britain, and our consumption of its manufactures, diminish.

"Upon the whole, we entreat the governor to consider the distressing circumstances under which the trade, and in consequence the whole province, must languish, if, contrary to our expectations, the bill we now present should not be enacted into a law. And we are well assured, that as the governor has been pleased to declare his sentiments of the many advantages we derive from the use of paper-money, his transmitting it home, in a true light, will make our application to the crown as effectual as it is reasonable."

The governor now demurred in his turn, and by his secretary gave the house to understand, that, as it was usual for the assembly to meet again in August to finish the business of the year, he chose for that and some other reasons, to keep the bill under consideration, till that time.

In this the house acquiesced, and having suspended all resolutions on the proprietaries' paper, and the draught prepared by a committee of their own in answer to it, till their next sitting, proceeded to the Indian affairs, and having come to proper resolutions thereon, transmitted them also, together with the following judicious message to the governor, to wit:

" May it please the Governor,

"We have, on several occasions, acknowledged our grateful sense of the governor's regard and justice towards the Indians, our allies; and we now return our hearty thanks for his continued care, and for communicating the intelligence he has received concerning their present distresses. In pursuance of which, we have resumed the consideration of the letters laid before the house, with the message of the 10th of October last, together with the governor's late message and papers, sent down to us before and since the return of the express despatched to Ohio. We have carefully examined the messenger himself, and such Indian traders, and others, who could give us any information of the numbers, and designs of the forces, raised by the

governor of Canada, and of the condition of the Twightwees, as well as the other Indians, our allies, upon the 17th of Ohio, and upon mature deliberation, have resolved to contribute generously to their assistance, by a present suitable to their necessities of life.

"Though an alliance between the crown of Great Britain and the Six Nations, and the protection and assistance they expect to receive in virtue of that alliance, is more immediately under the direction of the government of New York; and although Virginia, at this time, has entered largely into the trade, and will, no doubt, on the present occasion, assist them and their allies, yet we have always endeavoured, in proportion to our abilities, by presents, as well as by obliging our Indian traders to behave with justice towards them, to preserve their friendship; and on the present occasion, notwithstanding we have the misfortune to differ in sentiments with our proprietaries in the part they ought to bear in these expenses, we have rather considered the advantages both they and the province may receive by our liberality, which we have noted cheerfully, and recommended the distribution to the care of the governor, that the Six Nations at Onondago (upon any application to be made to him in their own behalf, or for their allies who reside to the westward, and are likely to be more immediately affected) may be satisfied, and the present intended them best answer their necessities, and our peaceable and friendly intentions."

The present was eight hundred pounds: two hundred pounds as a present of condolence to the Twightwee nation, for the loss of four men of them, cut off in the preceding year, by the French and their Indians; and the rest to be distributed by the governor among the other nations, at his own discretion.

Thus far all was calm and quiet: and at their next meeting, in the latter end of August, they received two other messages from the governor, relating the money-bill and the Indian present: the latter importing, that he had not, yet, received any application for any purpose whatever, from any of the Indians; nor even such well-grounded advices of their necessities and distresses as to induce him to make any use of the credit reposed in him: that he had, however, despatched Weiser [the interpreter] for intelligence; and that, having received advices by all who came from the westward, that the French were on the march towards the Ohio, he had sent out their par-

ties to the woods before them, he did not send the present of condolence, for fear of its falling into the enemies' hands, &c.

And as to the former, it related to the currency-bill, introduced at the same time with some few amendments, to which he, the governor, presumed the house could have no objection; and concluded with these remarkable expressions: "I cannot, however, but acquaint you, that in giving my assent to this bill, I have acted rather in compliance to your repeated application, than, in my own judgment, I could think an addition to our currency at this time, absolutely necessary: I am in hopes, nevertheless, that as the sum to be emitted is not exorbitant, it may be attended with no bad consequences to the province."

Now the principal of these amendments was the following proviso, viz. "Provided always, and it is hereby further enacted by the authority aforesaid, that this act or any thing therein contained, shall not take effect, nor be deemed or construed or taken to have any force or effect, until the same shall have received the royal approbation of his majesty, his heirs, or successors." Which proved to be so far from being unobjectionable, that, upon the question, the house unanimously resolved, "Not to agree to this amendment, because they apprehended it to be destructive of the liberties derived to them by the royal and provincial charters, as well as injurious to the proprietaries' rights, and without any precedent in the laws of the province." And the governor, on the other hand, adhered. "Because the clause so proposed to be added was founded on the additional instruction from the lord's justices, in pursuance of the commons' address above specified; which instruction had been known to the province ever since January, 1740: and consequently, they might be the reason of his adding it, such as he could allow himself the liberty of receding from."

And here it was to be lamented, that, while this affair was first under the consideration of parliament, neither the proprietary nor the provincial agent thought fit to lay those clauses of their charter before the house, by which the said proprietary and the assembly are entrusted with the whole legislative power, subject to the royal revision and ratification, and may even put laws inconsistent with their allegiance in force, for the term of five years, without it; since, in all probability, that measure would have produced such a temperament as might have prevented the broil which ensued apparently for want of it.

The assembly took the governor's reply immediately into consideration, and prepared a rejoinder; in which having interwoven the unanimous resolution just specified, they declared themselves assured, from the report of their committee, to whom they

"They had this loss in defence of some English traders in one of their towns. The French came with a strong body, and destroyed the traders and their goods should be delivered to them. The Indians determined to protect them, and were overpowered by numbers; some of the traders were killed, and the rest were taken to Montreal, and afterwards sent prisoners to New York. Thus was the commencement of the present war, and one of the many hostilities of the kind previous to our late war." 4

referred both the clause and the examination of their laws, that there had not a single instance of a law passed under such a restriction as that then contended for, from the first settlement of the province to that day. And here they might have safely stopt, if they thought fit, seeing nothing could be added in their justification stronger than their charter-claims, and such a series of practice founded upon them: but, willing to be every way fortified, they entered further into an inquiry, why a dangerous an experiment should be then pressed upon them without the least apparent necessity? and proceeded to show, the instruction itself a temporary one: that, though it was directed to a governor of that province among the rest, it neither nor could suit their circumstances, either that or any other time before: since that this, having manifested and acknowledged by the lords of trade, the ends of it, to them, had been fully answered: that the said lords, in their report to the house of commons, subsequent to that address to the throne concerning the paper currencies of America, having signified, that they would humbly propose that his majesty would be graciously pleased to repeat his orders to his governors of the plantations, give their assent, for the future, to any or bills for issuing or re-issuing paper-money, proceed to say, "We hope these propositions for reducing and discharging the paper-currency of the plantations, may have a good effect in those governments which are held by immediate commission under his majesty; but we are very doubtful, whether they will produce the like effect in the charter governments, who do apprehend themselves by their particular charters and constitutions to be very little dependant upon the crown, and for that reason seldom pay that obedience to his majesty's orders, which might be ably expected from them;" that, notwithstanding what is here said concerning the repetition of those orders, they had good believe those orders, at least their governors, had been repeated: that a bill, in which a clause to infringe the orders and instructions of the crown in America had been repeatedly brought into parliament, and as often rejected: that the governor himself had represented this bill (to restrain the issues of paper-money) as of mischievous tendency: that the very proprietaries had made a merit of opposing it: that, in the act of parliament for that purpose which did in June 1751, the eastern colonies alone were included: so Pennsylvania left in full possession of its rights, even by the parliament itself: that, as the date of the governor's commission was many years posterior to the date of the instruction, they hoped presumed, was full liberty their acts

the terms granted them by the royal and provincial charter, without putting them the disagreeable necessity of examining the validity of such instructions, &c. And, lastly, as to the issue of their inquiry, concerning the necessity of contending for the present amendments, they only declared themselves at a it out, but also upon the governor to comply with the general voice of the people, and the repeated unanimous applications of their representatives in granting them and the province the able relief provided in the bill, by giving it it stood.

How the governor was circumstanced may gathered from his actions: he adhered to his amendments, and returned the as before, with a written message, in which he persevered in holding up the instruction as an insurmountable bar, till revoked, to the assent required of him; urging, that his predecessor had done the in 1740: that the assembly admitted the validity of it in ordinary cases; and, without pretending to dispute, only hoped he would find himself at liberty, on a re-consideration, to give his assent, notwithstanding, to a currency-bill when any extraordinary emergency required it: that then, it seemed plain, they not think instruction, founded on address of the commons, was either illegal temporary, or destructive of their liberties; that if these were then the sentiments of both governor and assembly, there no for the insinuation that he been the first to press dangerous experiment; that if there was no instance before of a like clause offered, there was, perhaps, no instance of the like instruction, which otherwise, it have been supposed, would have with the dutiful obedience: that a restraining instruction was, perhaps, on occasion necessary in the business of money, which the king had peculiar prerogatives; that if they could make it appear to majesty's ministry, that addition to their currency was at that time necessary, the royal compliance was not to be doubted: that with regard to former currency-bill by them cited, he was still of the same opinion; but that surely a very moderate share of penetration was sufficient to distinguish between an act enforce all orders and instructions, and an instruction founded on an address of parliament; that they would certainly allow him to judge for himself in point recommended his observance on pain of incurring his majesty's highest displeasure; he did not by any blame them for contending for what they apprehended be their rights and privileges, consequently have no objection their examining validity of the king's instructions, provided they proceeded with such temper and moderation, as might give world room to

repeat ■■■ charge brought against the charter-governments by the lords of trade, of apprehending themselves very little dependent on the crown; and that, upon the whole, he was sincerely of opinion, the royal instruction was of the same force ■■■ when the late governor told the assembly, in the year 1746, he could not bring himself to such a pitch of boldness ■■■ it.

■ ■■ obvious, that the conjuring up the ghost of these departed instructions, ■■■ only to strike ■■■ into the assembly, and thereby prepare them for what farther practice, the new orders which could ■■■ but accompany the proprietary's paper already recited, might enjoin.

The king, the king's ministers, and the house of commons, ■■■ authorities too big for ■■■ provincial representative to ■■■pete with, and therefore it might be supposed their very names would serve.

■ ■■ they ■■■ wise and too steady ■■■ be amused, and the difference of language made use of by the proprietaries and their governor, was alone sufficient ■■■ warrant the different conduct they observed; for though the governor talked only of the sovereign power, the proprietaries talked only of themselves; "If ■■■ shall ■■■ induced from the state of your trade to consent to an increase of your paper-currency."

Not thinking themselves obliged, therefore, to consider what additional inducements ■■■ necessary to incline those great men to suffer their deputy to discharge ■■■ duty of his ■■■ mission, the assembly chose to lose their ■■■ rather than pay ■■■ for it than it was worth.

Accordingly, the governor's amendments being again put ■■■ the question, were again rejected unanimously; and a committee was appointed to answer his message, which they did in such a ■■■ as showed they were ■■■ do justice to their cause ■■■ make their ■■■ to the governor.

What governor Thomas did ■■■ passing the five thousand pounds act, they urged against what he said: the validity of instructions in ordinary ■■■ said to be admitted by the assembly of that time, they explain away, by saying, the distinction ■■■ only made use of to furnish the governor with a pretence, or inducement to ■■■ the bill: that this was not the first instruction unlimited in point of time, and remaining ■■■ yet unrevoked, which neither ■■■ would, ■■■ they hoped, be observed; since there ■■■ still ■■■ in the council-books ■■■ governor Keith, dated July, 1723, requiring him, for the future, not to pass any private ■■■ without a suspending clause, till his majesty's approbation had ■■■ first obtained; that unfortunate, indeed, would ■■■ of Pennsylvania be, if governors were never ■■■ freed from the obligation of occasional instructions. "If the king, ■■■

they, "should judge all ■■■ purposes of his ■■■ answered, upon passing the paper-money ■■■ in parliament in 1751, we must, nevertheless, for ■■■ continue under the burden of it without redress. And if we ■■■ suppose the governor ■■■ restricted by ■■■ proprietaries from giving his ■■■ to the emission of any farther sum in bills of credit, as we have very little reason to doubt, if then the proprietaries should be pleased to withdraw that restriction, and leave him ■■■ liberty to pass all ■■■ upon the terms granted to us by ■■■ charters, what will this avail if the governor continues ■■■ think he ■■■ be freed from the obligation of his instructions?"

More materially still, they also subjoined articles following, viz.

"We apprehend ■■■ royal orders and instructions subject the governors to whom they ■■■ directed, and their ■■■ too, as the governor ■■■ pleased to inform ■■■ to the royal displeasure, unless such instructions are revoked by his majesty's authority; and yet we cannot find that governor Keith, ■■■ whom ■■■ directed, or governor Gordon his successor, or governor Thomas, or our present governor, have ever thought themselves under any danger of incurring his majesty's displeasure for a total neglect, and direct disobedience to the additional instruction of the lords justices in 1723, the original of which we make no doubt, as well ■■■ of the instruction of 1740, ■■■ in the governor's possession; and ■■■ substance of both we know to be printed with the minutes of our house. Why then an instruction, allowed to be in force in 1723, and still unrevoked, should be of ■■■ effect, and an additional instruction of the lords justices in 1740, possibly revoked by the conduct of the succeeding sessions of the same parliament, upon whose address to his majesty that instruction ■■■ founded, should be ■■■ strictly binding, is what ■■■ cannot apprehend.

"But if the liberty the governor contends for ■■■ mean, ■■■ allow him to judge for himself, how ■■■ he may ■■■ may not obey such royal instructions, at his own risk, (as his majesty's highest displeasure is threatened against him particularly) and ■■■ his pleasure too, then we ■■■ we are at a loss to distinguish any great difference between the mischievous tendency of an act to enforce all orders and instructions of the crown whatever, and the necessity the governor is pleased to think ■■■ under to allow him the power of enforcing them when ■■■ he shall think fit; with this preference, however, that we would far rather choose to submit ourselves, and our ■■■ to the king and ■■■ justice of a British parliament, than to the mere will of ■■■ governor, whether to enforce or disregard them, however they may have answered their ends, or otherwise abated

of their force; and in the present case, we hope the governor, in reflection, will have some regard to the judgment of the parliament from which the petition to the crown had been preferred to issue this additional instruction, who, although requested in their next petition by the board of trade, to address the crown again, that he would be pleased to repeat his instructions to the governors in his American colonies, have not only never complied therewith, that we know of, but have since passed an act for restraining the issuing of credit in those particular colonies, where, after a full inquiry, they found such omission injurious to the trade of Great Britain, not calculated to do justice between man and man, and have left us, as we presume, exonerated from the burden of this additional instruction, and full power to make laws upon the terms of charters; and so long as we ask nothing farther than is warranted by these, we hope it neither will nor can interfere with the royal prerogatives.

"It may be presumed, the representatives of this province, when met in their assemblies, have valuable privileges yet left, in framing their laws, to do justice between man and man, without the aid of an additional instruction; and we hope it cannot be expected that we should very easily part with those rights and depend on royal instructions, over which we are to allow the governor the power he is pleased to contend for; and we have no doubt, men of understanding and candour will prefer a regular course of laws, occasionally suited to the times, and framed by representatives of the people, annually chosen, and assented to by their governor, to a series of instructions for that purpose from so great a distance.

"For our part, we are fully satisfied and assured, that so long as we continue in our duty and loyalty to the best of kings, who has been pleased to declare, *that nothing in this world give him as much pleasure as to see his subjects a flourishing and happy people*: neither claim, nor desire, other or greater privileges than those we have a right to, under the grant of his royal predecessors, we have nothing to fear from a king and British parliament; and, as it is our duty to defend them in the best manner we are able, in the faithful discharge of so high a trust, we shall have the satisfaction of our own minds, and, we hope, the countenance of all good men, notwithstanding the governor's opinion, that the charge made against this province (among other charter provinces) by the board of trade, is not much to our advantage."

And having before declared their persuasion or assurance, that the governor might pass any law in question, or any other law consistent with the royal charter, without the

least apprehension of his majesty's displeasure, they finally suggest, that it must be not only a loss of time to the representatives, but a great expense to the country, to prepare bills for the governor's assent, which he was bound by private instructions from the proprietaries not to pass.

Unanimously this report was approved of, and yet, from a principle of moderation we must presume, it was left to be reconsidered by the next assembly; as also was another report, received the day from the committee, appointed to draw up a reply to the paper last transmitted from the proprietaries, of which, as a debt both of honour and justice to the province, some account is now to be given.

Sixteen sections or paragraphs, it must be recollected, that paper was composed of; and one by them severally considered, and acknowledged or refused.

The declaration contained in the first is acknowledged to be a noble and worthy the rank held by the proprietaries: the insinuation in the second is declared to be only groundless but also injurious: the assembly, of opposing the proprietary interest, having consulted that interest, even the very point in question, if it was consistent with their interest to have a good understanding with the people; to obtain which method was proposed: the intimation contained in the third, that after they had ordered their governor to give the answer which he thought fit to the former application, they had no reason to expect a repetition directly to themselves, &c.; it was replied, that repetitions, when they are supported with new reasons, may contain to those given for refusing the request that had been made, justifiable in all except where the person applied to is infallibly right, or incapable of hearing reason: to the fourth, containing the opinion of the lords of trade, concerning the obligations incumbent on the proprietaries as chief governors, to a part of public charges, the committee say, that the house did not require their contribution as governors but as proprietaries; which was according to William Penn's own distinction formerly made; and considering them, as in the same paragraph is afterwards done, to be the wealthiest inhabitants of the province, it follows undeniably, that such their contributions are therefore due to the province in proportion to their substance in it: in their answer to the fifth, they both combat with and complain of a misrepresentation contained in it, as a thing unworthy the dignity of the proprietaries as chief governors of a province, urging, that they did not assert, purchases made directly with the people's money; but only, that they were made on the more reasonable terms, because of the pro-

vincial presents attending them; and ■■■ was advanced as ■■■ additional reason why ■■■ proprietaries ■■■ bear, ■■■ least, a proportional part of the expense of such presents; sharing in the ■■■ place, ■■■ they did, in ■■■ good from these treaties resulting to ■■■ whole, and engrossing, over and above, a very considerable advantage to themselves.

To the sixth, which insinuates, that the people are able enough ■■■ pay these expenses without the ■■■ of the proprietaries, they retort ■■■ unanswerably, that because they ■■■ able ■■■ pay, it does not follow, that, therefore, they ■■■ obliged ■■■ pay unjustly; as also, that they, the proprietaries, ■■■ rank which they hold, ■■■ by hereditary descent, but ■■■ they are the voluntary choice of a free people, unbribed, ■■■ even unsolicited; but they ■■■ sensible ■■■ true respect is not necessarily connected with rank, and that it is only from a ■■■ of action suitable ■■■ that rank they can hope to obtain it."

Upon the seventh, concerning the expediency of showing a due regard to the proprietaries and their interest, they comment as follows. "that is, ■■■ we understand it, though the proprietaries have ■■■ deputy here, supported by the province, who is, or ought ■■■ be fully empowered to ■■■ all laws necessary for the service of the country, yet, before we can obtain such laws, ■■■ must facilitate their passage, by paying money for the proprietaries which they ought to pay; or, in ■■■ other shape make it their particular interest to pass them: we hope, however, that, if this practice has ever been begun it will never be continued in this province; and that since, as the very paragraph allows, we have ■■■ undoubted right to such laws, ■■■ be always able to obtain them from the goodness of our sovereign, without going ■■■ market for them ■■■ a subject."—They afterwards expatiate on the word rank as applied by the proprietaries to themselves in the ■■■ paragraph: concerning which they say, "■■■ cannot find on perusing the representation in question, that ■■■ contains any treatment unsuitable to their rank. The resolve of the house ■■■ prevent dissatisfactions ■■■ all sides, they should be requested, in the ■■■ reasonable and most respectful manner, ■■■ agree upon ■■■ proportion of Indian charges ■■■ paid by them and the province according to justice: and it may be submitted to the judgment of ■■■ impartial persons, whether the representation drawn in pursuance of the resolve, was

■■■ reasonable in itself and respectful in the ■■■ It ■■■ not, as the proprietaries represent it, ■■■ address ■■■ the public. It ■■■ not ■■■ this day made public. It was a private application ■■■ themselves, transmitted to them through the hands of their governor. Their true interest (which they will always ■■■ to consist in just, equitable, and generous ■■■ sures, and in securing ■■■ affections of their people) ■■■ consulted in it, ■■■ one suitable means proposed to obtain that end. As to rank, the proprietaries may remember, that the crown has likewise been pleased ■■■ give the assemblies of this province a rank; ■■■ rank which they hold, ■■■ by hereditary descent, but ■■■ they are the voluntary choice of a free people, unbribed, ■■■ even unsolicited; but they ■■■ sensible ■■■ true respect is not necessarily connected with rank, and that it is only from a ■■■ of action suitable ■■■ that rank they can hope to obtain it."

Coming then ■■■ the eighth, they express their surprise at the ■■■ affected by the proprietaries, on their being, as they say, laid under a necessity of acquainting the public with a state of the provincial revenue, the said revenue being annually settled, stated, printed, and published by the assembly, and having so been for thirty years past: adding, that whatever reasons the proprietaries ■■■ have to make ■■■ secret of their revenue, ■■■ province had none.—The manner ■■■ which the proprietaries reason concerning taxes they object to in the next place, ■■■ and ■■■ conclusive: asserting, that taxes, how reasonably soever imposed ■■■ willingly paid, are, nevertheless, taxes: that all taxes ought upon the whole, to produce ■■■ good to those who pay them, than the ■■■ left at their own disposal, in which case they are no burden, &c. and concluding thus; "after estimating our whole present revenue, ■■■ if it ■■■ been the same for twenty years past, and would certainly continue, though the proprietaries know it depends on temporary acts near expiring, the renewal of which ■■■ best dubious, they conclude that four hundred pounds a year, for Indian expenses, is ■■■ small sum, and that ■■■ are under no necessity of being frugal, ■■■ this account, of the public money. This four hundred ■■■ year is the ■■■ that they find has been paid on ■■■ average for twenty years past, and they take ■■■ notice of its being ■■■ growing charge, and that for the four last years before the representation, ■■■ ed to nearly twelve hundred ■■■ year, which we conceive ■■■ interested persons will think a very large ■■■ and although the same excise might have been raised, if not half that money had been expended, it does not seem to us to follow, that ■■■ proprietaries ought ■■■ to have paid their just proportion of it; if the sum be small, their proportion of it ■■■ have been smaller: ■■■ the money so saved might have been ap-

plied to some other use; beneficial to the public; ■ have remained ready in the treasury for any emergency."

In ■ the ninth they say, the people of Pennsylvania pay, proportionably, as much towards the support of his majesty's government, in the shape of duties and excise, as the proprietary family, ■ any other subjects; indeed ■ much ■ ■ infant colony can bear; and more they hoped and believed the justice of a British parliament would ■ burden them with: adding, "the proprietaries exemption ■ not published till now at their own instance; it ■ made use of as a private motive ■ themselves only in the representa-

To the tenth, which regards the Indian interpreter, among other things equally pertinent, they say, "we ■ oppose the instance al- luded to, wherein the assembly did ■ fully satisfy him, ■ have been such ■ the prop- rietaries were concerned in by the purchase of lands; and a part might be accordingly ■ for them to pay."—And for themselves and all other assemblies, they declare their hope and belief, that no service from the prop- rietaries to the province, will ever be suffered to pass without grateful acknowledgments and proper returns.

(If the proprietary right to a monopoly of land, whether from the crown or assembly, they, in answer to the eleventh article, waive all dispute; it being every way conclusive alike. "that those in whose favour such monopoly was created, ought, at least, to bear a part of the expenses necessary to secure them the full benefit of it."

Lastly, having already given the conclud- ing five articles of the proprietary paper ■ the entire, it is but reasonable to subjoin the en- tire answers, which were ■ follow. To wit:

"12. In the twelfth paragraph, three things appear somewhat extraordinary ■ your com- mittee. 1. That the proprietaries should deny that treaties for land ■ made at less ■ ■ account of provincial presents ac- companying them; which we think any dis- interested judge would ■ allow to be probable. 2. That they should say the last purchase ■ made ■ no other account, but purely to save the province the expense of ■ present; as if they had no occasion ■ purchase more land of the Indians, or found no advantage ■ it. 3. That to prove such pur- chases were not less cheaper on ■ of provincial presents accompanying them, they should give ■ instance ■ which, they them- selves say, the purchase was the dearer for ■ of such presents. If purchases are dear- ■ the proprietaries when no provincial pre- sents accompany them, does ■ this clearly confirm the assertion of the assembly, ■ they ■ the cheaper when there ■ such

presents? and does it ■ prove what ■ pro- prietaries deny?"

"13. It appears by their thirteenth para- graph, that the proprietaries think ■ part they voluntarily submit ■ bear, and expect always to bear, of public expenses, is greater ■ their proportion, equitably laid, would amount to. If this be so, and they are, as they ■, far from desiring to avoid contributing ■ any public expense which it is reasonable they should bear a part of, although their es- tate is not by law liable to be taxed, your committee ■ at a loss to conceive, why they ■ refuse, 'to enter into ■ agreement for the payment of ■ any particular proportion of Indian or other public expenses,' when such agreement might ■ them money, and is proposed to prevent dissatisfactions, and to preserve union and harmony between them and the people; unless it be to show their utter contempt of such union and harmony, and how much they ■ above valuing the people's regard.

"The charge ■ former assemblies, that they neglected the defence of the prop- rietaries' city, your committee cannot but think unkind, when it is known to the world, that they gave many thousand pounds during the war to the king's use, besides paying near three thousand pounds at ■ time, to make good the damages done to the ■ of ser- vants, by the irregular and oppressive pro- ceedings of the proprietary's lieutenant; and that their not providing cannon to defend the city was not from neglect, but other con- siderations set forth at large in the printed proceedings of those times, needless now to be repeated. At the same time it may be re- membered, that though the defence of the proprietaries' city, ■ they are pleased to term it, by batteries of cannon, ■ more their in- ■ (we will not say duty) than any other persons whatsoever, and they now represent it as ■ thing so necessary, yet they themselves really neglected, and even discouraged it, while ■ private gentlemen gave ■ nearly equal to that they mention, and many contributed vastly more, considering their circumstances, by which means those bat- teries were not only completed ■ season, but the defence of both town and country ■ that way provided for; whereas this boasted as- sistance of four hundred pounds' worth of cannon, was sent, like Venetian succours, af- ter ■ were over. Yet ■ doubt not, but the proprietary who ■ them has long since had the thanks of those who received them, though ■ cannot learn that they ever were favoured with any from him, for what they did and expended in defence of his share of the province property."

"14. The fourteenth paragraph of the prop- rietaries' ■ ■ ■ ■ ■ merely

for the same design with which they charge representation, viz. to the weaker part of the people.—If they are really disposed to favour the drinkers of spirituous liquors, they may do it without a law, by instructing their lieutenants to abate the license fees, which would enable the retailers to proportionably cheaper; or to refuse licenses to more than half the present number of public houses, which might prevent the ruin of many families, and the great increase of idleness, drunkenness, and other immoralities among us."

"15. In return to the good resolutions presented by the proprietaries in their fifteenth session, your committee hope that future, as well as past assemblies, will likewise endeavour to make the public good the rule of their actions, and upon all occasions consult the interest and honour of the proprietary family, whatever may be the sentiments or conduct of any of its particular branches. To this end, we think the honest and free remarks contained in this report, may be more conducive than a thousand flattering addresses. And we hope, that when the proprietaries shall think fit to reconsider this matter, they will be persuaded, that agreeing to an equitable proportion of expense will be a good means of taking away the handle of dissension from the warm, uneasy spirits; if such should ever unhappily procure themselves to be elected."

"16. Yet if the proprietaries are really desirous of preserving peace and harmony between themselves and this people, we cannot but be surprised at their last paragraph, whereby they endeavour to cut off the assembly's access to them, in cases where the assembly received from their deputies may be thought agreeable to the public good. No king of England, as we remember, has ever taken to himself such state, as to refuse personal application from the meanest of his subjects, where the redress of a grievance could not be obtained by his officers. Even sultans, sophies, and other eastern absolute monarchs will, it is said, sometimes at whole days to hear the complaints and petitions of their very slaves; and the proprietaries of Pennsylvania, become too great to be addressed by the representatives of the freemen of their province? if they must not be reasoned with, because they have given instructions, nor their deputy because he received them; our meetings and deliberations henceforth useless; we have only to know their will and to obey."

"To conclude; if this province must be more than two thousand pounds a year poorer, to support a proprietary's deputy, who shall not be at liberty to his own judgment in passing laws [as is intimated] as in the fourteenth of the answer we have been considering] the assembly must

be obtained from chief governors, at three thousand miles distance, often ignorant or misinformed in our affairs, and who will not be applied to or reasoned with when they have instructions. We think that these colonies that under the immediate care of the assembly in a much more eligible situation; and with sincere regard to the memory of our first proprietary, must make us apprehend for our children, that they follow the advice of Rehoboth's counsellors, they will, like him, absolutely lose,—at least, the affections of their people. A loss, which however they affect to despise, will be found of more consequence to them than they seem at present to be of."

The assembly returned in October, for the remainder of the year 1753, and to last till October 1754, being composed of nearly the same persons as the last, met with the same dispositions, and proceeded on the same principles.

To have a sufficient currency was, as we have seen, the great provincial point; and from the facts already stated, it is sufficiently clear, that the proprietary-concurrence therewith was to be obtained, but upon such terms as even silver and gold could never be worth. The loan-office, which was in the hands of the assembly, was still considered an over balance for the land-office, in the hands of the proprietary, though they were in competition, and no benefit could any way result to the province, but the proprietaries were sure to have their share of it.

What encouragement the near prospect of a war furnished to either; and what was made of it; and at whose door the obstructions given to the public service were to be laid, will best be deduced from the sequel.

With the consideration of the state of their currency, and the accumulated proofs resulting therefrom, that with the increase of their currency, the trade of the province, as well by importations from England as the exportations of their own product, had amazingly increased, the assembly opened their session in February, 1754; and taking also the consideration of their currency with it, came to the following resolutions. To wit:

"That it is necessary that the paper-money of this province should be re-issued for a farther time."

"That there is a necessity of a farther addition to the paper-money at present current by law within this province."

"That there is a necessity, that a sum should be struck to exchange the ragged and torn bills current by law in this province."

Upon which resolutions, they afterwards ordered in a bill for striking forty thousand pounds, to be made current by emitting on loan, and for re-emitting continuing the

currency of the £ already in circulation; and on the other hand, the governor sent them down a written message, accompanied with a letter to himself from the earl of Holderness, a second from the lords of trade, and a third from the French commandant on the Ohio to Dinwiddie, deputy governor of V.

The earl of Holderness's letter was dated August 28, 1758, it may be presumed, was sent with the other letters, sent at the same time, to the governors of the other provinces.

The contents of it were, "That his majesty having received information of the march of a considerable number of Indians, supported by regular European troops, with an intention, as it was apprehended, to commit on parts of his majesty's dominions in America, his lordship had received the king's commands to send him (the governor) intelligence thereof; as also to direct him, to his utmost diligence to learn how far the same might be grounded; and to put him upon his guard, that he might be at all events, in a condition to resist any hostile attempts that might be made upon any parts of his majesty's dominions within his government; and to direct him in the king's name, that in the subjects of any foreign prince or should presume make any encroachments the limits of his majesty's dominions, to forts on his majesty's lands, or any other act of hostility, was immediately represent the injustice of such proceedings, and require them forthwith desist from any such unlawful undertaking; but if, notwithstanding such requisition, they should still persist, he was then draw forth the armed force of the province, and to use his endeavours repel force by force.—But as it was his majesty's determination not to be the aggressor, he had the king's commands strictly enjoin him, the said governor, not to make of the armed force under direction, excepting within the undoubted of his majesty's dominions; and that, whereas it might be greatly conducive to his majesty's service, that all his provinces in America should be aiding and assisting each other in case of any invasion, he had it particularly in charge from his majesty to acquaint him, that it was his royal will and pleasure, he should keep up an exact correspondence with all governors on the continent; that in he should be informed by them of any attempts, he immediately the general assembly, and lay before them the necessity of mutual assistance, and engage them to grant such supplies exigency of require."

His letter the lords of trade, was dated September 16, and imported, "That his

majesty having been pleased to order a sum of money to be issued for presents to the Six Nations of Indians, and to direct his governor of York to hold interview with them, for delivering the for burying the hatchet, renewing the chain, they thought it their duty to signify the same; and it having been usual upon the occasions formerly, for all his majesty's colonies, whose interest or security were connected with or depended upon them, to join in such interview; and that, as the present disposition of those Indians and the pts made upon them to withdraw them from the British interest, appear to them to make such a general interview more particularly necessary that time, their desire was, that he, the governor, would lay this before the council general assembly the province under his government, and recommend to them forthwith to make a proper provision for appointing commissioners be joined with those of the other governments, for renewing the covenant chain, &c. and that said commissioners might be men of character, ability, integrity, and well acquainted with Indian affairs."

The letter of the French commandant was in answer to the representations of governor Dinwiddie, concerning the French encroachments on the Ohio, (for the European regulars mentioned in lord Holderness's letters, of that nation, though so much caution been used to suppress the very name) and in very polite terms denied the whole charge.

In the governor's written message accompanying these papers, something said of each; and of the last rather whatever the matter of fact really was) than it seems to contain. The French commandant says, "it belongs to his general at Canada, not to him, demonstrate the reality of the king his master's right to the lands situated along the Ohio: that he shall forward the letter he has received to him; that answer would be law to him; as the requisition made him, to retire, he could think himself obliged to submit to it; that he was there by his general's orders, which he was determined to obey; that he did know of any thing had passed during the campaign, which could be esteemed hostility: that if the governor had been more particular in his complaints, he had been more particular in his &c."

The governor's comment in these words, "An express has this week brought me governor Dinwiddie's account of that gentleman's [col. Geo. Washington's] return with the answer of the commander of the fort, who avows the hostilities already committed, and declares his orders from the king of France are to build more forts, take possession of all the country, and oppose all who shall resist,

English as well as Indians, and that ■■■■ certainly execute these orders ■■■■ early as ■■■■ season will permit."

■■■ certain, ■■■■ least, this language was ■■■■ echoed at home:—and not ■■■■ extraordinary it is, to find this gentleman in his very next paragraph, making so very free with ■■■■ French name, which the secretary of state ■■■■ been ■■■■ extremely careful ■■■■ avoid the mention of.

"Gentlemen (he proceeds to say) French forts and French armies ■■■■ near us, will be everlasting guards in our sides; ■■■■ inhabitants from thence will feel all the miseries and dreadful calamities that have been heretofore suffered by our neighbour colonies: all those outrages, murders, rapines, and cruelties, ■■■■ which their people have been exposed, ■■■■ going to be experienced by ourselves, ■■■■ less ■■■■ force be immediately raised sufficient to repel these invaders. It is to be hoped, therefore, that as loyal subjects to his majesty, and in justice to your country, you will not fail to take into your consideration the present exigency of affairs: and, ■■■■ it will be attended with a very considerable expense, and require ■■■■ large number of men, make provision accordingly, that I may be enabled to do what his majesty, as well as the neighbouring colonies, will expect from a government ■■■■ populous, and likely to be so nearly affected with the neighbourhood of French garrisons."

In subsequent paragraphs, he further informs the assembly, that the governors of Virginia, New York, and the Massachusetts, had made a tender of their assistance to the province, and expressed an earnest desire to act in concert ■■■■ it; enforces the necessity of a general union of all the provinces, both in council and force; recommends the appointment of ■■■■ trusty person to reside, in behalf of the province, among the Indians upon the Ohio: as also the preparation of a bill for better regulating the Indian trade; and concludes with the following stimulative, to wit:

"Gentlemen,

"There is ■■■■ much to be done, and so little time to do it in, the ■■■■ being ■■■■ far advanced, and governor Dinwiddie expecting the forces from this province ■■■■ join those of Virginia, early in March, ■■■■ Potowmack, ■■■■ I most earnestly entreat you will not delay the supplies, ■■■■ deal them out with a sparing hand, but ■■■■ all the expedition in your power; for you will undoubtedly agree with ■■■■ that ■■■■ alarming ■■■■ occasion has not occurred since the first settlement of the province, nor any ■■■■ thing happened that ■■■■ much demands your ■■■■ attention."

A treaty with the Ohio Indians, it is to ■■■■ observed, ■■■■ been just concluded ■■■■ the ■■■■ of the province, by three commissioners, two of them selected out of the assembly by the governor; and the necessity of regulating the

Indian trade had, in the course of the conferences, been made undeniably apparent, by the representations ■■■■ complaints of the Indian chiefs.

And the reader will of himself be furnished with proper reflections on the earl of Holderness's letter to the governors of the ■■■■ provinces, imposing the double ■■■■ upon them, of defending themselves against the encroachments of the enemy, and also against ■■■■ objections ■■■■ home, in ■■■■ of doing it improperly. To ■■■■ nothing of the peculiar difficulty laid both on the province and governor of Pennsylvania, where there never ■■■■ been any armed force ■■■■ a provincial establishment at all.

The assembly took ■■■■ whole into immediate consideration, and agreed upon the following answer, which ■■■■ up to the governor ■■■■ the same day. To wit:

"The distressed circumstances of the Indians, ■■■■ allies, on the river Ohio, demand our closest attention, and we shall not fail to proceed in the ■■■■ contained in the governor's message with all the despatch an affair of ■■■■ much importance will admit of, in which we doubt not to comply with every thing that ■■■■ be reasonably expected on our part.

"In the mean time, having some ■■■■ since prepared a bill, which we conceive absolutely necessary, ■■■■ only to the trade and welfare of this province, but to the support of government, upon the ■■■■ of which our deliberations at this time must in a great measure depend; we now lay it before you ■■■■ a bill of the utmost importance, and to which we unanimously request he would be pleased to give his assent.

Four days the governor and his council employed in considering what return should be made to it; or, rather in searching ■■■■ such an expedient ■■■■ should force the province into the ■■■■ of the proprietaries, ■■■■ else, by their refusal, embroil them with the government. In his very first paragraph he gave ■■■■ absolute negative to their bill. He told them, that the product of their present funds ■■■■ greatly more than sufficient for the support of government; that he hoped to find them better subjects to his majesty, and greater lovers to their country, than to make the issue of their bill, in which he and they had an equal right to judge for themselves, the rule of their conduct. "If, however, (continued he) you should be of opinion, that there will be ■■■■ necessity to strike ■■■■ farther ■■■■ in bills of credit, to defray the charges of raising supplies for his majesty's service in this time of imminent danger, and will create ■■■■ proper fund or funds for sinking the same in a few years, I will ■■■■ with you ■■■■ passing a law for that purpose, thinking myself sufficiently warranted so to do, in cases of real emergency.

"And now, gentlemen, I hope you will, upon due consideration, be of opinion with me, that the chief end of your bill will hereby, in a great measure answered, the sum be struck and circulated upon this occasion, will be such addition to your present currency, as probably may be thought sufficient for some time."

The assembly also, in their turn, took a sufficient time for deliberation, and having touched on the unusual manner in which the governor had been pleased to reject their bill, and assumed some merit to themselves, in suffering any separate interests of their constituents to interfere with the public good, observed, there was some difference between the royal orders and the governor's instructions of representing them; chose therefore to adhere to the former; availed themselves most prudently and sensibly of the cautions so circumstantially recommended and enforced in them; especially concerning the undoubted limits, and the restrictions thereupon, that his majesty may not be rendered the aggressor; said it would be highly presumptuous in them to judge of those undoubted limits: that instead of being called upon to resist any hostile attempt made upon any part of Pennsylvania, they were called upon to grant such a supply as might enable the governor to raise forces to be ready to join those of Virginia; that therefore they hoped the governor, under these circumstances, would concur with them, in the prudent part for them would be to wait the result of the government of Virginia, where no provision had yet been made; they knew of, in any of the neighbouring colonies, though the several governors, in pursuance of the king's command, had made the necessary requisitions of their several assemblies, and they were equally bound by all the ties of general interest. They also superadded the regard due to the scruples of those conscientiously principled against war, yet deeply sensible of the blessings they enjoyed, and willing to demonstrate their duty and loyalty, by giving such occasional sums of money for the king's use, as might be reasonably expected from young men of colour. took notice they had contracted a sum of fourteen hundred pounds for presents to the Indians, and other charges arising from the late treaty, which they should cheerfully discharge, though their proprietaries refused to contribute any part of their Indian expenses; agreed to send commissioners to Albany, as required, though the place was so remote, and to defray the expense, &c.

The difficulty thus retorted on the governor, and his resentment must be supposed quickened thereby, he takes up the minutes of the last day's sessions of the last assembly, and under the pretence of justifying his own character, revives the old controversy concerning the

paper-money instructions, by a long and angry paper sent to the house March 1; and, forgetting what he had formerly said in the following paragraph, "I do not blame you, gentlemen, for contending what you are persuaded your rights and privileges, and consequently can have objection to your examining the validity of the king's instructions;" flumes as follows, "Had I been an enemy to the liberties and privileges of the people, or been desirous of gratifying my own passions at their expense, it must be confessed you have furnished me with the fairest occasion a governor as disposed could possibly have wished for. For example, you have voted a clause, proposed to be added to your bill by his majesty's express direction, the request of his two houses of parliament, he destructive to the liberties of the people of this province, &c. and have even threatened to examine the validity of the king's instruction, if, by a perseverance in my opinion, I laid you under the necessity of doing it. What is this less than declaring, that the lords and commons, and his majesty's privy council, consisting, among others, of the most eminent lawyers in Great Britain, have requested, and his majesty enjoined, an act directly contrary to law?"

And he concludes with making a merit to the province of the moderation he had shown, in suppressing his sense of the provocation, then offered to him, in hopes of a more dispassionate behaviour for the future.

The very next day this paper followed by another immediately in point: the governor, therein undertaking first to defend his negative, and the bill he had made of it, and, secondly, the table on the assembly, that all the wrong should be on their side, and all the right on his.

The governor made of the different language used by the secretary of the assembly and him, he calls an evasion; and what they ought not, in point of duty, to have taken any advantage of, he then declares he is undoubted that part of his majesty's dominions, within his government was, at that time, invaded by the subjects of a foreign prince, who had erected forts within the same; and requires them to take notice, he then call upon them, pursuant to his majesty's order, in the present emergency to grant such supplies as might enable him to draw forth the armed force of the province, &c. He then undertook to prove, that the place where the French had then their head-quarters was within the limits of the province; and tells them, that if he did communicate the same before to assist their inquiries into this fact, neither had they applied him for them; that if they had inquired of them, and suppressed the truth, it was extremely disingenuous; not, their neglect

could be imputed ■ no other ■ than ■ de-
 ■ to have a plausible excuse for not ■
 a proper regard to his majesty's commands;
 that even on account of the scruples urged,
 he had looked on governor Dinwiddie's re-
 quisition as ■ very lucky circumstance; see-
 ing, that a requisition from himself would have
 ■ the province ■ the front of opposition;
 and a refusal from them, would have exposed
 it to the contempt and derision, as well of the
 French as our Indian allies; that as the French
 ■ these hostilities, ■ the Indians, menaced
 by them, most earnestly besought us, to ■
 places of refuge, to which their wives and
 children might repair for safety, and also to
 assist them against their enemies; that in-
 stead of being governed by the example of
 the neighbouring colonies, nothing remained
 but to give the necessary supplies, and there-
 by set the example ■ them, this province
 having been first invaded, and consequently in
 the most immediate danger; that without this,
 they could neither keep their treaties with the
 Indians, ■ demonstrate their duty and loy-
 alty to his majesty; that having now done his
 duty, whatever ill consequences might hap-
 pen, were to be laid ■ their door; that with
 regard to the refusal of the proprietaries, to
 contribute any part of their Indian expenses,
 it was true, they had refused to do it in the
 ■ expected, and they had given their
 reason; but that the proposal made by him,
 the governor, by their order, in the years 1750
 and 1751, in regard to the building a strong
 trading house near the place then invaded and
 possessed by the French, could not be forgot;
 which generous offer ■ had the assembly thought
 fit to close with, it might, ■ small expense,
 have prevented all the mischiefs impending,
 and secured a country to the English, which
 probably might ■ be recovered without a
 heavy charge, and the loss of many lives.

Whether the hostilities committed by the
 French ■ ■ not committed within
 the bounds of Pennsylvania, became the great
 question.—The assembly called for evidence;
 the governor imparted all he could collect;
 and, after a strict examination of the premises,
 the assembly chose only ■ glance at the ■
 flammatories thrown in their way, and to pro-
 ve their readiness to concur with the go-
 vernor in whatever might preserve the har-
 mony between the several branches of the
 legislature, ■ necessary ■ times, ■
 pecially at ■ crisis so important, so far as the
 preservation of their rights and the duty they
 owed their ■ would permit. ■
 departing, however, from their former senti-
 ments, ■ admitting any one of the articles
 laid against them; but, on the contrary,
 maintaining, that the secretary of the state's
 letter ■ ■ only rule of their conduct;

* ■ assembly's ■ the charge hereafter,
 in ■ of governor ■

and tacitly upbraiding the governor for having
 ■ altered the whole connexion be-
 ■ Pennsylvania and Virginia, in conse-
 quence of such supposed misconduct of theirs:
 ■ concluding their replication in these
 words: "as governor Dinwiddie had laid be-
 fore his assembly the earl of Holderness's
 letter, sent, as we presume, in the same ■
 to all the colonies on the continent, we judged
 it most prudent ■ wait till the assembly of
 that government had enabled him to ■
 obedience to the royal commands, especially
 as they had that letter under their considera-
 tion from the first of November last, as ap-
 pears by the journal of their house of bur-
 gesses ■ before us; but ■ are now called
 upon as principals, and the governor is pleased
 ■ inform us, that he has undoubted assurance
 that part of his majesty's dominions within the
 government ■ this time invaded by the
 subjects of a foreign prince, who have erect-
 ed forts within the same; and calls upon us, pur-
 suant to his majesty's orders in the present
 emergency, to grant such supplies as may
 enable him to resist those hostile attempts,
 and repel force by force; but, ■ it appears to
 us ■ the governor is enjoined by the royal
 orders, not to ■ as a principal beyond the
 undoubted limits of his government; and ■
 by the papers and evidences sent down and
 referred to by the governor, those limits have
 not been clearly ascertained to our satisfaction;
 we fear the altering our connexions with his
 majesty's colony of Virginia, and the precipi-
 tate call upon us, ■ the province invaded,
 cannot answer any good purpose ■ this time,
 and therefore we ■ now inclined to make ■
 short adjournment."

The adjournment they proposed was to the
 sixth of May; and, before they broke up, the
 governor again addressed them with another
 ■ in which he also affected to wave
 several things personal to himself, which, ■
 another time, he might have thought it ■
 bent on him to take notice of: and proceeded to
 ■ them, that had they examined with
 their usual accuracy the gentleman, who by
 his appointment attended their house, and
 compared their testimony with the written
 ■ several times communicated to them,
 he thought it would have appeared so clear to
 them, that the French had lately erected one
 or more forts far within the limits of the pro-
 vince, that nothing less than an actual ■
 suration could have made it more evident;
 ■ even taking ■ for granted, however, the
 forementioned encroachments were not with-
 in the said limits, yet he, having been inform-
 ed by the governor of Virginia, that hostile
 attempts had been made ■ part of his maj-
 esty's dominions, and called upon him for the as-
 sistance of this province, it was equally their
 duty, to grant such supplies as the present
 exigency of ■ required; and, that he

could but be apprehensive, that so long an adjournment would frustrate his majesty's just expectations from them.

This message dated March 11 April 2 find them sitting by his special summons again: the occasion of which the day explained in the usual way by as follows: "I am now to acquaint you, gentlemen, that since your adjournment I have received from governor Dinwiddie the several papers herewith laid before you; by which it will appear, he is taking all imaginable pains for the security of his majesty's dominions, so far as the provision made by his assembly will permit him to act; he is very impatient to know the issue of your deliberations on this subject. I cannot therefore doubt but, that agreeable to the profession in your message of the twenty-seventh of February, 'of being ready and willing to demonstrate your duty and loyalty, by giving such sums of money to the king's use, upon all suitable occasions, as may with your circumstances, or can reasonably be expected from this province;' I say I cannot doubt but you will, with the greatest alacrity, lay hold on the present opportunity of evincing the sincerity of those professions, by granting such aid to his majesty, as may comport with the circumstances of the province, and as suitable to the exigence of the And, in the doing of this, I hope you will be guided rather by the importance of the concern, than by the example of other colonies: it being found by experience to be a very ill-judged piece of economy to cramp an enterprise of this in the article of supplies; that whatever is given such occasion, short of being sufficient to accomplish the ends proposed, becomes, for the most part, a of so much treasure, without ing any of the purposes for which it was intended.

"I have at present only to add my request, that whatever you intend to do on this occasion, may all the despatch the nature of the thing will admit of; the of the year action advancing so fast, that unless our measures be speedily taken, they will, I fear, be rendered altogether unserviceable."

Upon the fifth, after many debates, it was resolved, by a small majority, that a sum of money should be given for the king's use; and what should be, occasioned many debates. Twenty thousand pounds being proposed on ninth, it passed in the negative by a majority of twenty-five to eight; reduced fifteen thousand pounds, it passed in the negative twenty-three to ten; reduced to ten thousand pounds, it passed in the negative twenty-two to eleven; again reduced to thousand pounds the day, again passed in negative twenty-two. T who hitherto house,

voting affirmatively; and, on contrary, those who had hitherto voted affirmatively going over to the remainder of the negatives.— And this apparent perplexity was, in their reply to the governor's message, thus accounted for: "And now beg leave to inform the governor, that we have had that message under our serious consideration ever came down to the house; but after all our debates thereupon, we find that nearly one half of the members are, for various reasons, against granting any money to the king's use at this time; and those who for granting, widely in their sentiments concerning the sum, that there present no possibility of their agreeing, except in such sum, as, in the judgment of many of them, is quite disproportionate to the occasion: therefore, and that the members may have an opportunity of consulting their constituents on this important affair, now inclined to adjourn to the thirteenth of the next month."

According to their adjournment, the house met again, May 6, and were informed by the governor of the arrival of a body of French forces, consisting of upwards of one thousand men, before the fort building by the Virginians on the Ohio, and the surrender thereof. also laid before them the despatches he had severally received from governor Dinwiddie of Virginia, concerning the state of that province, and the he wanted and expected; and from governor Delancy of New York, concerning the interest of his majesty's colonies in general, as well as of Pennsylvania in particular; and said, "I hoped they would have their due weight with them in their deliberations and advice." The proposals made by the governors of Boston and New York for an of the several colonies in Indian affairs, he then recommended to them earnestly, agreeable to his own sentiments, and likely to be productive of more real benefit, much less expense than method hitherto in use of making frequent and distinct presents to the Indians, &c. And he desired to be enabled to instruct the commissioners to be sent from their province, to with those of the other colonies, a reasonable plan should be offered.

joint for granting aid to the king, and replacing and signed bills of credit, was the result of their first day's debate; and after several divisions, the several settled at ten thousand pounds for the king, and twenty thousand for the other purpose.

The of Great Britain will not money-bill to be amended: the lords reject, his majesty may refuse his assent, what they give, they give upon their own

In Pennsylvania a money-bill exacted from the province, by considerations which could affect generous minds, intimidate

weak ones, the dread of an enemy the rates, and of incurring both the royal displeasure and the public odium, for not making a reasonable provision against his approach, could not be accepted without amendments.

Even this bill at such a crisis offered, and for such a service, was returned by the governor, with amendments prefaced with a written message, of which the two following are the most material paragraphs. viz.

"Considering the royal instruction laid before the assembly last year, it must be apparent that I have, merely from a desire to oblige you, consented to raise the money intended for his majesty's use in a manner by you proposed. And have prolonged the currency of the bills of credit, as he issued in virtue of the bill now under consideration, as far as I think consistent with my safety.

"And, as the fund to be established upon the foot of my proposed amendment will be more than sufficient to repay the grant made by the bill, I can see no objection for extending the act of excise longer than four years beyond the date of its present limitation, or for burdening the people unnecessarily a tax that possibly may not be wanted."

And these proposed amendments restored unanimity to the house. for whereas they had been divided many ways in the course of the bill, they now acted with one will and one voice, in rejecting that concerning the excise, which manifestly took its rise from proprietary considerations only, and for the sake of which, either the service of the public was to be neglected, or the province give up its understanding.—The latter exceeded the power of persuasion, and the former they left those to answer for, to whom it belonged.

Their reply to the governor on this motion follows. "The house are not inclined to enter into any dispute with the governor on the subject of his proposed amendments to the money-bill; the representatives of the people have an undoubted right to judge, and determine, not only of the sum to be raised for the use of the crown, but of the manner of raising it.

"The governor, in his message of the nineteenth of February, was pleased to tell us, 'That, if the house should be of opinion that there will be a necessity to strike a farther sum in bills of credit, to defray the charges of raising money for his majesty's service in this time of imminent danger, and would create a proper fund or funds, for sinking the same in a few years, he would assent with us in passing a law for that purpose, thinking himself sufficiently authorized so to do in cases of real emergency.'

"On this subject the house have prepared a bill, and presented it to the governor,

to strike the sum of ten thousand pounds, to give the same to the king's use, and to sink it by an extension of the excise act for a further term of ten years. The governor will be pleased to consider, that his predecessor, to whom the mentioned instruction was given, did afterwards pass an act of the same kind, extending the excise act ten years (now near expired) for a grant of five thousand pounds only; and we never hear that he incurred the royal displeasure for so doing.

As the sum we grant is double, we had no expectation that our proposing the same term would have been deemed extravagant. The governor thinks four years sufficient; but the representatives are best acquainted with the circumstances of the people, and must themselves, as a part of the people, bear a share of all burdens laid upon them, it seems not reasonable to suppose they will lay such burdens upon themselves.

They now offer ten thousand pounds to the crown, and propose a manner of raising it, that they judge easy and convenient for the people they represent: and, if the governor thinks fit to refuse it, merely from an opinion that a shorter term for sinking the bills would be more easy for the people, we cannot but suppose, that the messages in which he warmly recommended this affair to us, he has, on farther advice, or better consideration, changed his sentiments of the importance of the present supplies, and doth not think the danger so imminent, or the emergency so great or real, as he then apprehended it to be."

They also intimated at the same time, that being an inconvenient season for the members to be absent from their respective homes, they desired the governor to let them know his result as soon as possible.

And upon the next day but one this result came, and proved to be of a nature altogether extraordinary. Having charged the assembly with laying down a position their last message, derogatory to the rights of government; in maintaining, that the representatives of the people have an undoubted right to judge and determine, not only of the sum to be raised for the use of the crown but of the manner of raising it, he first acknowledges that right, and then whittles it away, by arguing, it was not an exclusive right; one half of the legislative power being vested in the governor. After which he goes on to say, that he neither objected to the sum, though he wished it had been larger and more reasonably granted, nor to the manner of raising it, though he could have also wished it had not been so compelling him to depart from the letter of his majesty's instruction, but only to the extension of the fund, whereby the money is proposed to be repaid, to an

sary length, by which a ■■■■ to be ■■■■ continued upon the people without the least apparent necessity : ■■■■ that he ■■■■ sorry to find, they were ■■■■ satisfied with ■■■■ by which the ten thousand pounds granted to his majesty would be repaid in the easiest manner in six years, and leave a surplus of several thousand pounds in their hands ■■■■ be disposed of ■■■■ they thought fit ; and that, for the said ten thousand pounds ■■■■ granted, they were desirous of obtaining ■■■■ than three times the ■■■■ for themselves : that the example of any former governor ■■■■ not to be a rule for him : but that, however, if they would enlarge the sum given for his majesty's use, he would extend the time for repaying it in the same proportion already allowed in his amendment, which he should not otherwise recede from : that it was possible more might be concealed under this solicitude for so long ■■■■ extension of the excise than they were willing should ■■■■ discovered :—and here a paragraph occurs, which does indeed make a discovery, and which will be of singular use to the intelligent reader through the whole ■■■■ of the controversy, viz. "It is well known, that by the laws now ■■■■ force, the public money ■■■■ solely ■■■■ the disposal of the assembly, without the participation of the governor ; nevertheless, while those acts, by which money was raised, ■■■■ of short duration, the governor ■■■■ now and then an opportunity of obliging the assembly in a very essential manner by a renewal of those acts, and thereby of making himself acceptable to them ; but to extend them to such ■■■■ reasonable length of time ■■■■ you now desire, might be to render him in a great measure unnecessary to them during the continuance of those acts, but upon terms very disagreeable to himself, as well as injurious ■■■■ his constituents : ■■■■ this condition, therefore, I will not ■■■■ the means of reducing any ■■■■ of mine ; and this circumstance ■■■■ of no small additional weight with ■■■■ to adhere to my amendment." ■■■■ then desires them to observe, that the question between them, is not, which is best acquainted with the circumstances of the people ? but whether it was reasonable to burden them with an ■■■■ sary tax : assures them, they ■■■■ exceedingly mistaken, if they really supposed he had either changed his sentiments with respect to the importance of the present occasion for supplies, or that he was less apprehensive of the dangers the province ■■■■ then exposed ■■■■ of a foreign power than before ; makes a merit of having gone further in his condescensions to please them, than he was warranted ■■■■ do, by the king's instruction, ■■■■ they made an addition to the supply, by extending their currency a year longer ■■■■ allowed ■■■■ the eastern governments by the late ■■■■ of parliament ;

adds, that ■■■■ well knew the ■■■■ of their funds, and that the loan-office itself, were the money duly collected, ■■■■ able to furnish ■■■■ much larger sum than the sum granted upon ■■■■ important occasion, independent of the interest hereafter to accrue, &c. That such being the favourable state of their finances, ■■■■ declining to do what ■■■■ majesty so justly expected from them, merely because he, the governor, would ■■■■ wholly depart from his instruction, they became ■■■■ justly chargeable with ■■■■ wanton disregard of his majesty's commands, than he could possibly be with the lukewarmness imputed to him, which he ■■■■ the greatest detestation of : and with ■■■■ mixture of persuasion and menace, he came ■■■■ a conclusion ■■■■ follows, "let me therefore, gentlemen, recommend to your serious attention, a review of your conduct upon the present occasion, and if you ■■■■ that you have been ■■■■ precipitate in the resolution contained in your message, let ■■■■ contrail you to rectify ■■■■ before it be too late : for, as I must be obliged ■■■■ to lay this whole transaction before his majesty, it would give me the greatest pleasure that both you and I might receive his gracious approbation of our services. But if, contrary to my hopes, you should still persist ■■■■ refusing to accept of my amendment, and the bill should by that ■■■■ be lost, I cannot but apprehend some unhappy consequences to the province from your extraordinary behaviour."

There is, one would think, a magical power in government, capable not only of altering, but ■■■■ reversing the firms, colours, and essences of things : to common sense it seems evident, that the people give, and the governor refuses to accept ; and that the said governor, by avowing proprietary and deputy-government-reasons for such his refusal, avows, that the king's ■■■■ and the people's safety ■■■■ but subordinate considerations—but our own eyes are not to be trusted it seems—none of this is so—if the people do not do all that is required of them, and in the ■■■■ required, they do nothing ; and all the mischief that ■■■■ are ■■■■ be laid ■■■■ their door.

The assembly ■■■■ not, however, ■■■■ amused by the waving of a government-wand ; but on the contrary, having bestowed as much time upon the affair ■■■■ necessary for a thorough discussion of it, ■■■■ to a course of spirited resolutions ; of which the ■■■■ material and perspicuous are those which follow, viz.

"That the raising of money for support of government and other public uses, by ■■■■ cise on spirituous liquors, hath been practised in this province, with very little intermission, for more than thirty years past, ■■■■ ■■■■ found, *communibus annis*, ■■■■ produce more money than was necessary for those uses.

"That the raising money by such excise,

has by experience been found less burdensome to the people, the method of poll and pound rates: and hence the load of public expense hath been cheerfully borne, government more liberally supported, those who serve the public better and more punctually paid, and greater given from to tunc to the king's use, than could otherwise have well been raised.

"That if the excise act be extended but four years, and the sum of ten thousand pounds is to be sunk thereby in that term, yearly municipal taxes by poll and pound rates (always more grievous to the people) must probably in a short time become necessary, to defray the usual and contingent expenses of the government.

"That if there really were, which is very uncertain, a great sum outstanding due to the public, as if collected, would be in the disposition of the house, and sufficient to answer the present emergency, yet, to enforce the collection suddenly, by seizing and selling the estates of the delinquent borrowers, in this state of scarcity of money, when so many institutions being offered it were to be sold, could not probably find a sufficient number of good purchasers, and must consequently sell for a price less than their real value, would be cruel, oppressive, and ruinous to the people.

"That the right of judging and determining, not only in the sum necessary to be raised for any public use, but of the time and manner of raising it, and term for paying it, solely in the representatives of the people, and that the governors of this province have not, nor ever had, nor can have, any right to interfere therein, under pretence of rectifying mistakes, easing the people, or any other pretence whatever.

"That a just, upright, and prudent administration of government, will always be the best and most effectual means of obtaining and securing the affections of the people, and that it is neither necessary nor expedient to draw the present assembly the exercise of their just rights, that a future governor may have an opportunity of obliging a future assembly by performing it.

"That an act of parliament made expressly to remedy disorders in the eastern governments, and in which this province is neither mentioned, nor intended, cannot by any construction be supposed binding on the governors or assemblies of Pennsylvania.

"That to refuse a grant of ten thousand pounds to the king's use, this critical juncture, when the services of the crown, and the welfare, present and future, of all the British colonies, seem to the governor so eminently to demand supplies, merely from an opinion in the governor, that he judge better than the people's representatives what is most for their good, or that a future governor may have

an opportunity of making himself acceptable, appears to this house to be sacrificing too much, to considerations of uncertain and small moment.

"That we have now offered the governor a bill for granting ten thousand pounds to the king's use, to be sunk by extending the excise for years, (a bill of the like tenor of that of 1710 [passed by governor Thomas] for granting the sum of five thousand pounds to the king's use, to be sunk by extending the excise for ten years) to which he has been pleased to refuse his assent.

"That the governor (in his message of the 1st of March last) acknowledged the term of ten years for extending the excise to sink the five thousand pounds, was 'a short space of time,' and that there was not 'the least probability of that act's producing any of the inconveniences complained of,' if the same term of ten years for extending the excise to sink the thousand pounds, would, in consequence, be allowed a 'short space of time,' and, the bill is now refused, being of the same tenor, there cannot be 'the least probability of its producing the inconveniences complained of: the preventing of which for the future appears clearly [in the governor] to have been the sole end and purpose of the royal instruction.'

"That the governor having, as he hoped, in his own words, 'incontestably proven that the true and intention of the royal instruction could have been no other than to guard against the abuses enumerated in the body of it, and the act for granting five thousand pounds for the king's use, passed by the late governor, in 1710, being of a singular and quite different nature from acts passed upon ordinary occasions, could not be comprehended within the meaning of the said instruction,' the bill now offered to the governor for granting ten thousand pounds for the king's use, being also of a singular and quite different nature from acts passed upon ordinary occasions, and of the same tenor with the bill passed in 1710, cannot be so comprehended, by the governor, (unless he has very lately altered his opinion) to be within the meaning of the royal instruction, and therefore,

"That it is our opinion, that if the governor is restricted by any instruction from passing this bill, it must be by some instruction which he has never been pleased to lay before this house—and the royal instruction, the operation of which, against bills of this tenor, he hath so effectually invalidated.

"That this house will this day adjourn to the nineteenth day of the month called August, next."

Before they adjourned, however, and without any mention made of these resolutions, they addressed the governor by message, which, having civilly and thankfully observed

care he had taken, to obtain the best intelligence he was able of what was proposed to be transacted, the treaty to be held at Albany, &c. they proceeded as follows:—And he has been pleased to request sentiments on the instructions to be given the gentlemen the part of this province, 'to which he will pay the greatest regard,' we do less than return him grateful acknowledgments for his condescension and justice, and would cheerfully comply therewith at this time but when we consider that no proposition for an union of the colonies, in Indian affairs, can effectually the good purposes, or be binding farther than they are confirmed by laws enacted under the several governments comprised in that union, that we know what restrictions the governor may be under in passing our acts, and that we have very little reason to depend upon assistance in our Indian expenses, whereby a former assembly, it has been respectfully addressed for, and where we think in justice we have a right to expect it, we are, under these circumstances at a loss to advise him on the important articles he has been pleased to propose to our consideration. Nevertheless as we have already declared our satisfaction in the gentlemen the governor has been pleased to name for this commission, we confide in their abilities and prudence to attain the ends proposed in the letter from the lords of trade, of the eighteenth of September last, by renewing at this interview the covenant chain with the Six Nations, and by frustrating, as far as lies in their power any attempts which have been made to withdraw them from the British interest, and for this purpose, in compliance with the said letter from the lords of trade we have now granted a present to be made to those Indians on our behalf, however inconvenient we may judge to hold treaties at Albany, other than

Lastly the governor also, in his part, desired the members sent with this message to acquaint the house that some parts of the minutes of that meeting might be necessary to be mentioned in the representation the governor found himself obliged to make to his majesty, in answer to his royal order, in relation to the conduct of his dominions by the French and their Indian allies, he desired the house would order a copy thereof to be delivered to him, and order thereupon made, that the said minutes might be delivered him accordingly.

Their meeting was the 7th of August following, by special upon which the governor, having for the house, acquainted them with Washington's defeat, the most solemn manner (his words) recommended them a cheerful

and vigorous resolution of dislodging from the neighbourhood of their settlements, [not the settlement its themselves or parts unsettled far within the limits of the province, as before confidently asserted from undoubted assurance] not indeed as principals but in with the government of Virginia, when the determination taken there should be communicated to them—urging that the mean while it would be highly expedient take into consideration the most proper ways and means of raising supply for this service and that in doing thereof, they should industriously avoid whatever might be likely to occasion any difference of opinion between him and them to the detriment of the common cause &c. That some provision should be made for the support of such Indians flying from the enemy, his taking refuge amongst their brethren of Pennsylvania, that the inhabitants on the frontiers had also by their petitions applied to him for protection that the defenceless state of the province in general demanded their special consideration that it was become his independent duty to press it upon them accordingly &c. And in the close all he expressed as follows.

I wish great satisfaction that I communicate to you the proceedings of the commissioners at the late treaty of Albany, as can possibly rest a clearer perception that the Indians are still to be yet belong to the Interest of his Majesty and have, long since been by them put under the protection of the crown of Great Britain. That the proceedings of the French in the same articles at this and in the numerous others I have never received the counterintelligence of those nations but on the contrary, they have previously declared by them to have been with out their privacy or consent. That they are greatly alarmed at the rapid progress of the French, and were to run to meet us with supreme negligence and the defenceless state of our possessions, and in effect calling upon us to fortify our frontiers, as well for the security of their countries as of our own. That after a due and weighty reflection on these several matters, with many other of great importance, the assembly thought it necessary to consider of, and draw up a representation of the present state of the colonies, and from thence judging that no effectual opposition like to be made to the destruction of the French but by the union of them all for their mutual defence devised likewise a general plan for that purpose, to be offered to the consideration of their respective legislatures.

And as both those papers appear to me to contain matters of the utmost consequence to the welfare of the colonies in general, and to have been digested drawn up with great

clearness and strength of judgment, I cannot but express my approbation of them; and do therefore recommend them to you, as well worthy of your closest and most serious attention."

The particulars contained in this speech were also collected by several papers communicated at the same time: and the house taking the premises into consideration, after various debates, divisions, rejections, &c. agreed to a bill for striking the sum of thirty-five thousand pounds in bills of credit, and for granting fifteen thousand pounds thereof for the king's use, and for applying the remainder to the exchange of torn and ragged bills: which, being presented to the governor, produced the following answer, viz.

"The governor promised himself, from the request he made in the house in his speech at the opening of the session, that (considering the importance of the occasion) they would have fallen upon some method of raising money for the king's use, to which he might have had no material objection; and could not help therefore being extremely mortified at finding the bill now presented him for that purpose, to be not only far from on the said plan, but to be nearly of the same tenor with that to which he refused assent at their last meeting. He has nevertheless complied with it as proffered, he then made them, and has agreed to extend the fund they have chosen to apply the money upon, in the same proportion as they have increased the sum granted to a majority. But the house is perspicacious, and will admit of no alteration in their bill. All that then remains after assuring them that the governor, lest the king's services should suffer, has strained his powers even beyond what he almost dares think consistent with his safety, is to submit our respective dissent to the judgment of our superiors. But he hopes this also may be rendered unnecessary by the arrival of the gentlemen that is to succeed him in the administration, who may every day be looked for among us: and who may possibly think himself more at liberty with respect to the matter in controversy, than the governor is presumed to do. Till the mean while it is hoped no considerable detriment may be done to his majesty's affairs in the short interval between this and the time of his actual departure."

"So much has already been said upon this subject on another occasion, that the governor declines any farther enlargement thereon, as well knowing that public disputes of this nature frequently terminate in private animosities, which he is very desirous of avoiding; and therefore only expects from the house that they will do him the justice he is willing to do them, in supposing him to act from his judgment, when he tells them that he cannot recede from his amendments."

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This was the last act of Governor Hamilton's government. Weary of a service, which he found incompatible, if not with his notions of honour, at least with his repose, he had desired to be dismissed; and was succeeded by Robert Hunter Morris, Esq.

In the beginning of October, 1754, much about the time of Mr. Morris's arrival at Philadelphia, a new assembly was to be chosen in the course of the year, and had been chosen accordingly.

To these summoned, according to form, up to his council-chamber, the new governor made a short speech; importing, "his persuasion that the proprietaries had nothing more at heart than the welfare and prosperity of the people: his own self-satisfaction that it was from the opinion that they had entertained of his disposition to promote the general happiness to the utmost of his power, they had made choice of him: the resolution he had taken not to disappoint them: assurance, that he should, upon all occasions, be studious to protect the people committed to his charge in their civil and religious privileges, and careful to maintain the just rights of government, as equally conducive to the public good: a recommendation, in particular, of the state of the frontier both of that and the neighbouring governments: where they would find the French acting with a steady uniformity, and avowed resolution to make themselves masters of the country: an interpretation of certain stipulations, drawn from a contemplation of the situation, they would be exposed to, that they suffered the enemy to strengthen themselves in their posts; and a earnest call upon them, in his master's name, to exert themselves at that critical juncture in defence of their country. And lastly, a declaration, that if they should find any laws wanting for the better government of the province, he should be ready to enter upon the consideration of such as they should propose, and give his consent to such as he should think reasonable."

More doubts than confidence, it may be presumed, this speech excited: for the assembly having, upon the report, bestowed not a minute in the consideration of it, thought fit to call for a copy of the governor's commission, as also of the royal approbation, before they proceeded to answer it.

This answer was also as dry, and as cautiously worded, as the governor's speech. They echoed back what parts of it they could; and then joined issue with the governor promising with the sincerity, to contribute every thing in their power to support him in the execution of the just rights of government, conducive to the good ends by him specified. After which they proceeded in these words "the encroachments of the French on his majesty's territories, and their hostile proceedings in this time of peace, are truly alarming, and

as they have been long since known in Great Britain, ■■■■■ hopes, on the governor's arrival, ■■■■■ have received instructions from the ■■■■■ how to conduct ourselves on ■■■■■ portant ■■■■■ but ■■■■■ we have not ■■■■■ any such laid before us, the royal order sent to the several colonies by the earl of Holderness, in his letter of the twenty-eighth of August, 1758, appears to be the only rule by which we can now act with safety. And as ■■■■■ find our late assembly did what ■■■■■ consistent with the ■■■■■ reposed in them, ■■■■■ comply therewith, the governor may likewise depend upon ■■■■■ doing whatever can be reasonably expected from ■■■■■ for the good of this province, or the general interest of the British colonies on the continent, whenever ■■■■■ assistance can be applied to any valuable purpose. But ■■■■■ present, as we know ■■■■■ where to direct ■■■■■ aid, and ■■■■■ this has not been the usual time of doing business, occasioned by the governor's being obliged to give his attendance elsewhere, we are inclined, if he has no objection, or any thing farther to lay before us, to make a short adjournment; and if, during our recess, any matters of importance should come to his knowledge, we shall cheerfully attend the governor's call of our house, and contribute our assistance for the public good."

The result was, that the governor thanked them for their speech, and concurred in their proposition; upon which they adjourned accordingly.

In the beginning of December they ■■■■■ again, and then the governor communicated a letter from Mr Thomas Robinson, secretary of state, dated July 5, 1754; by which it appears, that for upwards of ten months, the case of the northern colonies, actually invaded by the French, had not been made the foremost point of consideration here at home; and that the Americans ■■■■■ ■■■■■ a sort of disgrace at court for not having broken through all the ■■■■■ tions laid upon them before, and assumed and exercised all the powers of government ■■■■■ taking ■■■■■ of themselves.

Let the reader judge for himself.

WEDNESDAY JULY 5 1754

"Sir.—Your letter of the 25th of November last, ■■■■■ answer to the earl of Holderness's, of the 28th of August, having been received and laid before the king, I am to acquaint you, that it is his majesty's express command, that you should, in obedience thereto, not only act vigorously in the defence of the government under your care, but that you should likewise be aiding and assisting his majesty's other American colonies, to repel any attempts made against them; and it was with great surprise, that the king observed your total silence upon that part of his majesty's orders, which relate to a ■■■■■ with the other colonies, which, you must ■■■■■ sensible, ■■■■■ now become more essentially necessary ■■■■■ their

common defence, ■■■■■ the account received by you from major Washington, with regard ■■■■■ the hostilities committed by the French upon the river Ohio, which verify ■■■■■ fact what was apprehended when the earl of Holderness wrote ■■■■■ fully to you in August last, and which might have been, ■■■■■ great measure, if ■■■■■ totally prevented, had every ■■■■■ of his majesty's governments exerted themselves according to those directions, the observance whereof I am now, by the king's command, to enforce to you ■■■■■ the strongest manner—I am, &c."

The governor also accompanied this letter with a speech, in which ■■■■■ the following ■■■■■ particulars, &c.

"From the letters and intelligence I have ordered to be laid before you, it will appear that the French have now, at their fort at Monongatula, above a thousand regular troops, besides Indians; that they are well supplied with provisions, and that they have lately received an additional number of cannon, that their upper forts are also well garrisoned and provided; and that they are making a settlement of three hundred families in the country of the Twightwee, at the south-west end of the lake Erie.

"From those papers you will likewise be informed of the use they have made of their last year's success among the Indians of the Six Nations, having prevailed with many of them to remove to Canada, who will either be neutral in the present dispute, or take up arms against us, while such few of the Indians, ■■■■■ still retain their attachment to the English, dare not be active for us, till they see ■■■■■ force in the field superior to that of the French; and if that be not soon, they will certainly give up our cause, and embrace the tempting offers made them by the French.

"Gentlemen, it ■■■■■ now several years since the French undertook this expedition, and we have long had full intelligence of their designs, and of the steps they have taken to carry them into execution. Their progress indeed has been very surprising, ■■■■■ ing chiefly to the inactivity of the English colonies, who, I am sorry to say, have looked with too much indifference upon ■■■■■ affair that must end in their ruin if not timely prevented."

"Poor colonies! exposed on our hand 'condemned on the other!'

In a subsequent paragraph he also proceeds as follows:

"These encroachments of the French upon the territories of the crown of Britain in America, have turned the eyes of Europe ■■■■■ this quarter of the world, so it ■■■■■ uncertain what effects they may produce. The conduct therefore, of these colonies, will be more than ■■■■■ object of their attention, and ours ■■■■■ particular who are most immediately concerned: for whether ■■■■■ French forts are within

the particular limits of this province or not, I look upon to be very immaterial — the present case, though in my opinion they — clearly so: but be that as it may, our situation — present — certainly very alarming: the French on our borders — numerous, strongly fortified, well provided, and daily increasing; the small body of English troops on — frontiers, weakened by desertion from the independent companies, and the want of discipline — the — levies; the Six Nations of Indians, formerly — firm friends, divided among themselves, many of them gone — to the French, and others wavering and — doubt whether to follow their brethren, or continue with us: the neighbouring provinces (except Virginia) though nearly interested in the issue of the present affair, either contributing nothing towards the common cause, or sparingly: and though Virginia has indeed given thirty thousand pounds, yet — will avail but little, unless a considerable body of troops be sent from this province, and kept up till the work is done.

"Permit me, therefore, gentlemen, to press this matter upon you: exert yourselves upon the present occasion: dissipate the cloud that hangs over your country, and — her from the threatened destruction. His majesty, ever anxious for the welfare of all his subjects, — cities and commands us; the eyes of a British parliament, of the people of our mother country, of the other American colonies; and even of all Europe, are upon us; and the fate of this country, the happiness — misery of your posterity, very much depend on your resolutions."

Thus Pennsylvania alone must be put in the front of the battle, must undertake for all, pay for all, &c. and — goaded on so to do by the very proprietaries and their deputy, who should have stood in the gap, and endeavored themselves to the province, by endeavouring to have the load laid — equally on the whole continent, and the effort made as generally — possible.

It — visible the governor's name signified nothing, whether Hamilton or Morris, except that the hard — driver — to be the best thought of by his employers: and — was but natural, that the assembly should be — resolute — continue the province in such a state — might render it worth preserving, as they — willing to contribute whatsoever they properly could towards its preservation. — Pennsylvania was more dear to them for the excellency of its constitution, than the excellency of — soil; and whatever the narrow notions of proprietaries may be, as the liberty of the province is diminished, the value of their possessions in it will diminish — proportion.

To discharge — duties at once, therefore, they again put the demands for the general

service, and those for the particular interest of the province, upon the same footing, by the — expedient of a currency bill, providing for striking the — of forty thousand pounds: bills of credit; — society for the king's use, and the other for replacing damaged bills: which they sent up to the governor for his concurrence, with a written message, of which what follows — the — material part.

"Though we hope the number of the French, and their Indian allies, mentioned in George Croghan's letters — full large, yet the — efforts they have made towards obtaining — possession on that part of his — ject's dominions, are truly alarming, and dangerous to the British interest — North America — and we have good reason to believe, the sums granted the king by — late assembly, had the then governor been pleased to pass the — offered to him for that purpose, 'might in a great measure, if not totally, have prevented the bad situation of our affairs — present,' and have placed — duty to the best of kings. — — desire it should always appear, among his most loving and loyal subjects. And for this —, it is with concern — find, by the above mentioned letter from the secretary of state, 'That it was with great surprise the king had observed, in our late governor's answer to the earl of Holderness, he had been totally silent on that part of his majesty's orders, which relate to a concert with the other colonies.' But as we have great confidence in — governor, that he will — times afford us all good offices and protection, and will be pleased to represent us and our affairs in a favourable light, as we hope he may do with great justice; so, on — part, we shall not fail to contribute every thing in our power to answer all reasonable expectations from — young a colony, — far as is consistent with our civil and religious liberties; beyond which, under so good a king, we are well assured nothing further will be asked or expected from us: and, in return for the governor's justice and protection, it will give us particular pleasure to make his administration — in this province easy to himself, and honourable to all."

Amazing — the answer by the governor, on the sixth day afterwards returned: for having, at his very outset, taken shelter under the old exploded instruction — governor Thomson; and Ryder the attorney-general's opinion upon governor Hamilton's — delivered — the following compendious — "I — of opinion, it is by no — safe — advisable, or consistent with his duty, — pass such bills, without a suspending clause;" and suggested, that he could not by — agree to the — bill, because forbid by the said instruction, without such a clause. He then proceeded to say, "however, as the — parliament restraining the four — go-

vernments from emitting paper-currency, gives them a power to strike bills of credit in case of emergency. I hope I shall be justified in thinking the reason holds good to us who are in the greatest danger, being already invaded by the French, and in immediate expectation of outrage from the Indians in their alliance: I will therefore join with you in any bill for striking what sum you shall think our pressing demand, provided a fund be established for sinking the same in five years.

"I am exceedingly obliged to the house for their kind sentiments with regard to me, and shall make it my peculiar care so to act as to merit the continuance of their good opinion; and can truly say it is a small mortification to me to be obliged to differ my opinion from the representatives of the province, who, I am convinced, act from upright motives, and what they esteem to be its true interest; but would willingly hope, when they choose to reflect on the obligations I am under to pay obedience to his majesty's instructions, that they will not press me to disobey them; especially when they consider, that should I disregard my own honour and safety in passing a bill circumstanced thus, there is great danger of its being disapproved by his majesty; and what loss and confusion such an event would cause in the province, by the paper-bills becoming of no value. I need not particularly mention."

From the year 1740, down to the time of this alteration, his majesty's ministers had never interfered in this dispute; nor in these requisitions from the secretary's office, in the king's name, of aid from his American subjects, is the least trespass on the right of the subject, by any injunction direct or indirect concerning the mode of raising these aids, to be traced: and yet this petty proprietary governor dares make a bugbear of his majesty's disapprobation, at the same time, and in the same breath that he leaves a gap for dispensing with the very instruction he pleads, provided the proprietary is satisfied, of reducing the term to five years.

It is reasonable to think the governor had in his hands a very time and third letter from the secretary of state, now Thomas Robinson, dated October 1754: for the very next day after the message was delivered, he sent down a copy of the said letter to the house, accompanied with another written message so timidly constructed, as to render it as embarrassing as possible.

This letter imported, that the ministers last come to a resolution of taking some measures of their own for the defence of America. Amongst others it was said, the king had commanded two regiments of foot, consisting of five hundred men each,

to repair to Virginia, there to be completed to seven hundred; also to send orders to governor Shirley, sir William Pepperell, to raise two regiments of one thousand men each; for which officers to be appointed, and to repair to America forthwith; all to be commanded in chief by a general officer of rank and capacity, accompanied by a deputy-quarter-master-general, and a commissary of the musters, who were likewise to be sent out as soon as conveniently might be, in order to prepare every thing for the arrival of the regiments.

be sent, and these to be raised. What follows is in the very words of the letter, viz.

"You will receive from that general, and the other officers mentioned, a full and exact account of the arms, clothing, and other necessaries, to be sent upon this important occasion: as likewise of the ordnance stores, and of the officers and attendants belonging thereto: which being ordered for this service, such proofs of his majesty's regard for the security and welfare of his subjects in those parts, cannot fail to excite you to exert yourself, and those under your care, to take the most vigorous steps to repel you, common danger: and to show that the king's orders, which were sent you last year by earl of Holderness, and were renewed to you in my letter of the 5th of July, have at last roused that emulation and spirit which every man at this time, to his majesty the public, and himself. The king will not therefore imagine, that either you, or the rest of his governors, will suffer the least neglect or delay in the performance of the present service, now strongly recommended to you, particularly with regard to the following points, viz. That you should carefully provide a sufficient quantity of fresh victuals, at the expense of your government, to be ready for the use of the troops, at their arrival. That you should likewise furnish the officers, who may have to go from place to place, with all necessaries for travelling by land, and there to be going by sea; and that you should use your utmost diligence and authority in procuring an exact observance of such orders as be issued from time to time, by the commander in chief, for quartering the troops, impressing carriages, and providing all necessaries for such forces as shall arrive, or be raised within your government.

"As the articles above-mentioned are of a local and peculiar nature, and arising entirely within your government, it is almost needless for me to acquaint you, that his majesty will expect, that the charge thereof be defrayed by his subjects belonging to the same. But with regard to such other articles, which are of a more general concern, it is the king's pleasure, that the same should be supported by a common fund, to be established for the benefit of all the colonies collectively in

America; for which purpose you will use your utmost endeavours to induce the assembly of your province to raise, forthwith, as large a sum as can be afforded, as their contribution to this common fund, to be employed, provisionally, for the general service of North America, particularly for paying the charge of levying the troops to make up the complement of the regiments above-mentioned, until such time as a plan of general union of his majesty's northern colonies, for their common defence, can be perfected.

"You will carefully confer, or correspond, as you shall have opportunities, upon every thing relative to the present service, with the said general, William Pepperell, and governor Shirley, either of them; and as is the king's intention give all proper encouragement to such persons who shall engage to upon this occasion, you will acquaint all such persons, in the king's name, that they will receive arms and clothing from hence, and that they shall be sent back, if desired, to their respective habitations, when the service in America shall be over.

"As the several governors in all the king's provinces and colonies in North America will receive, by this conveyance, a letter to the same effect with this which I now send you, they will be prepared at the same time to obey his majesty's commands.—And I am to direct you to correspond with all, or either of them, occasionally, you shall find it expedient for the general service."

It is plain by the general drift of this letter, that it related equally to every governor and every government of North America: and yet the governor of Pennsylvania did his best to narrow the application of it to Pennsylvania only. These are his words: "you will observe by the secretary of state's letter, that it is his majesty's pleasure should contribute as far as we can to the having about three thousand in readiness to enlist; that we should provide a quantity of fresh provisions for the troops, and necessaries for the officers that may have occasion to travel by land; that the orders to be issued by the commander in chief for quartering the soldiers, and impressing carriages, should be carried into exact execution; and that all necessaries should be provided for such troops as shall arrive or be raised within this government.—His majesty expects, that as the several articles, above-mentioned, are of a local and peculiar nature, and arising entirely within this government, that the charge thereof should be defrayed by his subjects within the same."

To both these messages the immediately applied themselves, to prepare suitable answers; and, beginning with the first, among other things said, "We have the misfortune to differ in opinion from the governor, after considering the case maturely as it now

lies before us; nevertheless, do assure him, that though in a matter of small importance we might not, perhaps, very tenacious of our own sentiments; yet, in this case, our all is concerned. and if we should not act becoming the rights our birth, as Englishmen, entitles us to, we might appear unworthy of the regard we have already experienced, and have good reason to hope for hereafter, from a British parliament."

"It appears that the case, as stated to the attorney-general, regards only emissions of bills of credit on common and ordinary occasions; and, in our opinion, very little, if it all, affects the present bill: and it is remarkable, that there is not the least notice taken of the act for granting five thousand pounds for the king's use, which governor Thomas passed without a suspending clause, by extending this very excise act for ten years, which we have now again extended for the same term of years only, and loaded it with a grant of twenty thousand pounds.

"As colonel Thomas gave his assent to that act after the receipt of the additional instruction, which the governor has now sent down with our bill, and as we presume he has no other or later instructions from the crown, though he has since received the royal approbation, we hope he will not think himself more restricted by it, than the gentleman to whom it was immediately directed; who has never suffered in his honour, that we know of, or incurred the king's displeasure for giving his assent to that bill, and at thus holds a government of great importance under the immediate powers of the crown.

"Governor Hamilton, we find, entered into bonds and penalties (among other things) that he shall from time to time, and all times, hereafter, as long as he shall continue lieutenant-governor of the said province, observe, perform, and obey all such directions and instructions, which now are, or shall any time be given, as sent to him, by his majesty, his heirs, and successors, or from any person or persons, acting, or that hereafter shall act, by authority from his majesty, his heirs and successors, and pursuant to, and for the putting in execution the several acts of trade and navigation, relating to the plantations, &c. which bond, bonds of the like tenor, we presume our governor may have entered into before he received the royal approbation: and yet our late go clearly in his reasoning with former assemblies, to have acknowledged he thought himself at liberty to pass acts of the tenor of our present bill for granting money for the king's use; and never offered a suspending clause, notwithstanding his bonds to the crown; but whether he might, or might not, be safe in passing a bill of the kind mentioned in his state of the case, could regard himself only, and does, by no

determine the rights we claim under the royal charter. And we have the pleasure to assure the governor, we have been credibly informed that the board of trade, about a year ago, asked a question of the attorney and solicitor-general, with respect to the validity of this instruction of a suspending clause, over governments claiming particular rights by charter; to which they have not yet given any answer, that we can learn. And we know, that notwithstanding two bills extending the royal instructions over councils and assemblies in America had been attempted in parliament without success, and a third bill was brought in with the same clause, yet it could not obtain passage there. And we are informed, that a noble friend of liberty and the rights of the British subject, a member of that house, exposed this third attempt fully, upon the second reading of the bill, that the clauses on this head objected to were dropt without a division in the committee. And until such acts of parliament shall be obtained, which we have good reason to hope will never be imposed upon us, the governor must agree with us, that it is our duty to defend the rights and privileges we enjoy under the royal charter.

"As in the present case, we are not bound by any acts of parliament, and are certainly clear of the act limiting the eastern colonies, we are the force and the intention of it, we hope the governor, from his known abilities and good will to the prosperity of this province, will immediately discern the difference between this bill and acts of assembly creating bills of credit on common and ordinary occasions. What force royal instructions may have on bills of credit passed on common and ordinary occasions is not immediately before us, and may be considered at a proper time. But we hope the governor, notwithstanding any penal bond he may have entered into, will, on reflection, think himself at a liberty, and find it consistent with his safety and honour, to give his assent to this bill, which may, at this time, be of such great service to the British interest in America.

"But if we should unhappily still differ in opinion, notwithstanding these reasons, and such as have been offered by our former assemblies, we must be obliged, as our last resource, to apply to the king, for redress, or to the lords of trade, or our proprietaries, as the case may require; in which, we doubt not, the governor will favour us with his assistance. And in order to furnish ourselves with every thing necessary for our own vindication, and that this may appear in full light, we entreat the governor be pleased to inform whether the royal instruction is the only impediment; or whether he has any farther instructions from our proprietaries, which influence him in refusing

his assent to this bill? and, if he has, that he would be pleased to lay those instructions before us for consideration."

And the answer to the second was as follows:

"The undoubted proofs his majesty has ever given of his gracious and paternal affection for all his subjects, however distant from his royal presence, and the fresh marks we have now before us of his care and regard for the welfare and security of his subjects in North America, excite in me the warmest returns of duty and gratitude; and we hope we have fully testified, that we have nothing more at heart, in all our deliberations, than the reasonable expectations of the crown from this young but loyal colony. We have cheerfully passed a bill for granting twenty thousand pounds for the king's use, which now lies before the governor for his approbation, and we hope will answer all the purposes recommended to his care by Sir Thomas Robinson's letter of the 20th of October last."

It is now the governor's turn; and the reader may recollect his former declaration, in order to wonder enough at his introductory paragraph, which is as follows:

"Gentlemen, when your bill for striking twenty thousand pounds, &c. was before me, I duly considered the dangerous circumstances in which the province was involved, and the absolute necessity of speedy measures to remove the French from their incursions, and this induced me, instead of adding a clause to suspend the force of the act till his majesty's pleasure could be known, to send it back to you, that you might frame such one as I was at liberty to give my consent to, and at the same time to signify to you, that I would agree to the striking any sum the present emergency might require, provided funds were established for sinking the same in five years, that being the term prescribed by an act of parliament for regulating paper-money in the eastern governments; and I thought the clause that I extended here, though the force of it did not; and I hoped that I might be excused, if I had far relaxed the instruction upon the present occasion, to act agreeable to the rule laid down by parliament for the neighbouring governments, and I am sorry, for the sake of the public, to find by your message, that you have so far misapprehended me, as to conceive that I intended to insist on the suspending clause in this dangerous situation of affairs, which the words of my message do in no wise import, and that upon the whole, you refuse to accede to the reasonable measures I proposed."—Proceeding then to Ryder's opinion; he would not allow, it regarded only the ordinary emissions; said, that if governor Thomas was never assured for dispensing with the instruction, I

because ■ transaction ■ had ■ been made known to his majesty or his ■ ters, that the fact mentioned by them, relating to the case laid by the lords of trade before the attorney ■ and solicitor-general, was quite unknown ■ him, that, however, when they should report their opinion, and his majesty should think ■ ■ different instruction, he should endeavour ■ by the proper obedience, that the debates in parliament, &c. had little connexion with the matter then before them, that though the parliament did not agree to give ■ general sanction to all instructions from his majesty, yet the instruction in question having been the result of addresses from both houses, it could not ■ doubted but they would support their ■ act, that he ■ joined with them in opinion, that the only method to have the validity and force of the ■ finally determined would be by an application to his majesty, and ■ desirous they should lay the whole affair before his majesty's ■ ministers, that being, ■ he was, in a great measure, a stranger ■ their constitution, the proprietaries' instructions were quite necessary to him, that those he had received from them, were so perfectly calculated ■ promote and secure the happiness of the province, and so reasonable in themselves, that they required nothing of him, but what he should have thought it his duty ■ do without them that though he did not think ■ quite decent, and ■ believed unprecedented, for ■ governor to be called upon for ■ sight of his instructions, he would nevertheless communicate them to the house whenever the public service should require it, that, accordingly, he took that opportunity to acquaint them, that he had it in charge from the proprietaries, ■ recommend to them, in the most pressing manner, to provide with all imaginable despatch for the defence and safety of the province, not only by affording such aid ■ his majesty from ■ in time should require, but by establishing ■ regular militia, providing ■ and stores of war, and building proper magazines, all to be done in such a manner ■ to be least burdensome to the inhabitants, and particularly ■ ■ not to oblige any to bear arms who were ■ might ■ conscientiously scrupulous against it, ■ he required this, ■ pursuance of the proprietaries' instructions, ■ that he was the more urgent in it, because the province never ■ in ■ danger ■ it was ■ time: that being to give true and exact accounts of the state of the province to his majesty and his ministers, as well as to ■ proprietaries, he desired a clear and determinate answer to this point, ■ he might be able to lay the same before his majesty in such a manner ■ might make the interposition of parliament unnecessary; ■ ■ was really concerned ■ find, ■ instead of providing ■ recommended to them

by his majesty, ■ a ■ agreement to his royal directions ■ has been already done, that no ■ had been, or could be, with propriety, directed by the king) they insisted on his passing the bill, in the shape they had sent it up, though before informed he could not do it, that he then again as used then, ■ would ■ that or any other bill for emitting paper-money, but upon the terms above-mentioned, he also took occasion to add, among other things, that this dispute, so long depending, might certainly have received his majesty's determination long ago, had they applied for it—[which, by the way, might have been retorted with equal truth on the proprietaries]—That, were there no other method of raising money for the ■ service, but that by their proposed and ■ laid upon, their conduct might have appeared ■ a more favourable light, but that ■ they had, or ought to have had in bank, ■ being, fourteen ■ fifteen thousand pounds together with a revenue of seven thousand pounds a year, ■ the city and province were in rich and flourishing circumstances, ■ people numerous, and burdened with ■ every trifling tax, he could not consent to pass the ■ proposed, it being (said he) a ■ breach of ■ royal instruction intended to enforce an act of parliament of the sixth of Anne, which [whether act or instruction ■ doubtful] they knew had been shamefully slighted and disregarded in this and the neighbouring provinces “Upon the whole,” continued he, “you will consider, gentlemen, in what light you will appear ■ his majesty ■ a British parliament, who are expending great sums of money for the defence ■ these colonies while you, the very province ■ concerned as being invaded, instead of contributing towards your ■ defence, ■ entering into an ill-timed controversy concerning the validity of royal instructions, which might have been determined long ago, and may be delayed ■ ■ time, without any the least injury to the rights of the people Let me, therefore, gentlemen, ■ recommend the present unhappy circumstances of this country to your most ■ consideration; ■ entreat you to lay aside (for the present ■ least) every thing that may admit of any dispute, and enter heartily into such measures as may best answer the public expectations, and assist his majesty in the measures he has concerted, and is carrying ■ execution, for the preservation of this country.”

■ assembly again, ■ if ■ give the governor time for second thoughts, ■ him up the reply that follows.

“Before we enter upon the consideration of the other parts of the governor's message of the 24th ■ ■ acknowledge ■ engaged ■ ■ heartily

ing [] their country; that he earnestly recommended to them to consider, whether such expressions might not have a tendency to alienate the affections of the people from his majesty's person and government, and thereby greatly obstruct the measures he was taking at a vast expense, for the preservation and protection of [] subjects on that continent; that he had lately received intelligence that six [] of the [] troops of France were actually arrived in the lower part on [] Ohio, and were there employed in fortifying [] country; that this ought to convince them, France had formed some grand design on that continent, and that as they had made their first attack upon Pennsylvania, as the [] plentiful [] defenceless part of his majesty's dominions, in a particular [], it moved [] themselves accordingly; and that he must, therefore, [] rest them [] more, [] waive [] disputes [] all a more favourable season, to consider seriously the dangers their country was exposed to, and not only grant the supplies required, but enable him to raise a considerable body of men, to [] employed in conjunction with his majesty's troops, establish a regular militia, provide the necessary stores of war, &c. [] the province, [] want of discipline, might no longer be left [] easy prey to a much weaker body of [] than [] then encamped within a few days of [] city."

How grossly uncandid and clamorously crafty this rhapsody was, appears [] the first glance; and its operation could not but be suitable to its contents.

In short, the assembly, upon the second reading of this and his former message, observing, that the governor called upon them to show, upon what information they founded their opinion, that he was restrained by proprietary instructions from passing their bill, had recourse to their former proceedings in relation to the proprietaries bearing a proportionable part of the expenses incurred on Indian affairs; and the whole having been read and duly considered, upon the issue made the following order, to wit:

"That [] representation from the [] bly to the proprietaries in 1751, the proprietaries answer thereto laid before the house in May, 1753, and the report of a committee of assembly at that time on the said answer (neither of which have as yet been made public) be now printed with the minutes of this sitting."—And they were printed accordingly.—So that the whole province had now for the first time the whole case before their eyes, and could not help being convinced by these emphatical words, in clause fourteen, of the proprietary answer, before pointed out, "especially if we shall be induced, from the state of your trade, to consent to an increase of your paper-currency," that proprietary, not

royal instructions, were indeed [] only obstacle to the public service.

But we anticipate—the assembly did not stop here; but unanimously came to such resolutions, and grafted such an address upon them, as, notwithstanding some few inaccuracies, must ever do as much honour to their understandings as justice to their cause, [] the noble principles it was founded upon.

With reference to the conduct of their predecessors in [] assemblies, and the success of their honest endeavours for continuing to them the invaluable blessings they enjoyed under their charters, derived from the royal clemency and goodness, and the justice [] benevolence of their founder, they set out; and [] themselves sufficiently animated by their examples [] pursue faithfully the [] path which they [] trod before them.

Having then glanced at the governor's evasion of his promise concerning his proprietary instructions, and the papers which had passed between the proprietaries and the [] bly, [] the ground of their proceedings, they inserted the unanimous resolutions they had come to, which were as follow, viz.

"That it is the opinion of this house, that [] late governor, who was, we presume, as much [] by the additional instruction [] col. Thomas, in 1740, as our present governor is or can be, has clearly admitted [] his [] sonings with our [] assembly, 'that it was an absurdity [] glaring, [] suppose that any government would voluntarily tie up the hands of its subjects from [] by such means as they are able, in [] of great [] gency;' and [] col. Thomas, in passing the [] for granting five thousand pounds, for the king's use, in the year 1743, by extending the excise act for ten years, was so far from acting contrary [] the instruction he had received [] the lords justices in 1740, that the very contrary [] evident;' and that the said instruction was not binding upon him from passing a bill in cases of great emergency, of the [] tenor with [] bill for granting twenty [] pounds, for the king's use, which our governor has now been pleased to refuse his assent to.

"That it is the opinion of this house, that [] governor is undoubtedly bound by proprietary instructions, and that they may be, [] we believe they really are, on some of them are, such [] independent of the royal instruction, limit or restrain him from [] ing acts, which, by the royal and provincial charters, we have an undoubted right to offer, and by which he has, or ought to have, [] powers to give his assent to, as governor of [] province.

"That [] is the opinion of this house, that [] proprietary instructions, or some one or more of them, is, or are, the principal, if not

the sole, obstruction to the passing our bill for granting twenty thousand pounds ■■■ king's use, in this time of imminent danger to ■■■ British interest in North America."—Adding, "May it please the governor, these resolutions, which are forced from us, we have entered into with the ■■■■ reluctance; and, in support of them, or any other part of our present conduct, we conceive it our indispensable duty to conduct ourselves precisely within the bounds of sincerity and sober reason, and to avoid every thing that is not in our opinion necessary to ■■■ own just vindication."

Yet more ■■■ manifest their ingenuity, they declared, in the next place, their readiness to ■■■■ or any part of these ■■■■ solves, ■■■ being convinced by a sight of ■■■ governor's proprietary instructions, which it was still in ■■■ power to communicate, ■■■ they had entertained a wrong opinion of them; but then, till ■■■ should be ■■■■, they presumed the governor himself could not but allow, that they had good reason to say, they were under a necessity of making their humble application to the crown in support of their civil and religious liberties; and to think, as it ■■■■ natural they should, that, if this could have been done, it would have been done; as also, that the governor, ■■■ their request, would have concurred with them in an address to the proprietaries ■■■ support of their charter, ■■■ it regarded the royal instructions only; ■■■ that, on the contrary, ■■■ circumstances were, their apprehensions of the proprietary instructions, and the operation of them, ■■■ defeating the bill by which they proposed ■■■ demonstrate their readiness and cheerfulness in answering all the reasonable expectations of the crown, could not but be well grounded: ■■■ that it ■■■■ with extreme concern, they found their governor, who was, or ought ■■■ be, set ■■■■ them for their protection, endeavouring ■■■ represent them in a light they ■■■■ and abhorred.

"The governor is but in the beginning of his administration," said they, "and if, when we received ■■■ proprietaries' commission, he was, 'in a great ■■■■ a stranger to our constitution,' ■■■ apprehend he still continues a stranger not only to ■■■ constitution, but ■■■ the inhabitants, if he does not certainly know, that ■■■ king has not a more loyal people ■■■■ all his subjects, than ■■■■ inhabitants are, and have ever been, since the first settlement of ■■■ province; nevertheless they are convinced they ought not ■■■ be governed by proprietary instructions in opposition ■■■ their charter, which is, in ■■■ opinion, the foundation ■■■■ sanction of ■■■ civil ■■■ religious liberties; ■■■ especially if these instructions must be secreted from them, and by that means the whole country left without any known rule of their conduct. And ■■■ sur-

prises us extremely, that a request ■■■ this house, respectfully addressed to the governor, that he ■■■■ be pleased to lay before us those instructions, or such part of them as might relate to the immediate service of the crown, and to the preservation of this his majesty's colony, in order ■■■■ we might examine how far they interfered with that allegiance the proprietaries themselves, and ■■■ of us, owe to the crown, or with the privileges gran■■■ by our charters, should be represented by our governor as an act that 'might have a tendency to alienate the affections of the people of this province from his majesty's person and government, and thereby greatly obstruct the measures he is taking, at a ■■■ expense, for the preservation and protection of his subjects upon this continent.' That thus contending for the rights granted us by the royal charter, which is the known rule of ■■■■ conduct, should have a tendency of that kind, under a king, who has been graciously pleased to declare, 'that nothing in this world can give him ■■■ much pleasure as to ■■■ his subjects a flourishing and happy people,' is so foreign from ■■■ thoughts, and we trust will be ■■■ foreign to every impartial construction, that ■■■ may safely leave it without ■■■ further remarks of our own. But if it should have a tendency ■■■ alienate the affections of the people from being bound by private proprietary instructions, the blame ■■■ not with us, who have never been consulted upon them; and if we had been consulted, should have thought ourselves obliged to declare, that we have a great ■■■■ to proprietary instructions, and that ■■■ far ■■■ they ■■■ against the prerogatives of the crown, or an infringement of our charter, they are illegal, and void in themselves."

They then cite sir William Keith's declarations concerning proprietary instructions before inserted; and at the ■■■■ time intimate, that he ■■■■ the ■■■ governor who gave bonds for the performance of them.—In ■■■■ to that part of the proprietary instructions which the governor ■■■■ cheerfully laid before them, concerning ■■■ militia, &c. they begged leave to say, "that, ■■■ it requires money to be levied upon the people for providing arms and stores of war, and building magazines, ■■■■ of opinion it may be time enough to deliberate upon it, when we are informed how far he is at liberty by his instructions to pass our bills; and whether himself, or the representatives of the people, are the proper judges of the ■■■■ of raising such monies. And when these, ■■■ civil ■■■ religious rights, ■■■■ cured, ■■■ cannot doubt all will rise up as one man in behalf of our king, our country, ■■■■ our charters, according ■■■■ several stations and abilities."

Coming then to the governor's state of their revenue, they show, ■■■■ as much a stranger to that as ■■■ the people ■■■ the constitu-

tion; and, instead of having fourteen or fifteen thousand pounds in bank, they not have above seven thousand pounds; as also, that, with the very large sums they had paid for the support of government, for Indian other expenses, the treasury loan-office almost quite exhausted. After which they proceed as follows: "admitting the governor's computation in its extent, if twenty thousand pounds, as he is pleased to inform us, will go but a very little way to raise maintain such troops as he may think necessary, and without which we had better, in his opinion, do nothing at all, how the inconsiderable sum have any power over, answer demands, though we should ruin the outstanding in our loan-office, by immediate sale of their lands? are unwilling make any further remarks on head, which has, been heretofore upon by late governor, but carries with it, we conceive, such appearances of severity, without any good purpose, that we think it our indispensable duty oppose it, as far as in justice we may; and now especially, when have offered a bill which would a generous sum of money immediately, for the use of the crown, in a manner that would be most easy and most agreeable to us all. Whilst upon this article, as the governor must be in a great stranger to our accounts, we the liberty to think, that the proprietary patents make, as we are informed by the trustees, near one half of the mortgages now outstanding. These, after paying for their lands out of the money borrowed from the province, improve them with the remainder, if any; and as they must have shelter themselves least, however and land cleared their subsistence, it necessarily puts them in arrears, let them be ever so honest and industrious; whilst the purchases of such their lands constantly complied with on granting the patents, the bulk of which, we presume, may have remitted to Great Britain, and makes a very sensible diminution of the silver and gold among us: that ranks of people, however flourishing the governor may be pleased represent us, complain justly for want of a due medium to carry on our trade; but as this inquiry is not immediately before us, at present leave it, proceed inform governor yet farther, that computation of our income is also too high; for as our excise, *communibus annis*, yields about three thousand pounds out of off hundred pounds is yearly mind towards sinking the sum of five thousand pounds, heretofore granted to the king's use) the interest payable into the loan-office is much about same sum; his error in the last article, we presume, might

arise, upon a supposal that our whole principal sum of eighty thousand pounds was always yielding an interest; this has ever been found impracticable, as considerable must continually changing hands, by virtue of our re-empting acts, which the province has, out of that principal sum, parts of it, without yielding interest all; particularly a debt from the city of Philadelphia due upon the first and second thirty pounds' acts, long since expired. And, until in our hands, it would be unjust compute an interest arising from it, or upbraid it with it, as money which ought to have been in our hands by law, whilst some may think we have no power it by the law in being."

Again: concerning the royal instructions, of queen Anne, said have been shamefully slighted disregarded in the neighbouring provinces, they argued thus: "the neighbouring provinces must answer for themselves; but, so far as regards this colony, we find, by the votes of the house, that whilst col. Thomas had the act before him, for omitting and re-empting eighty thousand pounds, this very act of the sixth of queen Anne was considered, debated, and so fully explained, that although exchange was then higher at this time, he (who was undoubtedly under the same oath and bonds to observe the acts of trade with our present governor) after mature deliberation, gave his word that on the nineteenth of May, 1750; which, after having been recommended by the merchants in England trading to the province, as an act not only reasonable but likewise necessary for carrying on the commerce of the country," the king was pleased to confirm it in a full council on the day of May following. What then the governor does, or can mean, by saying, we know that this province has shamefully slighted a royal instruction, intended to enforce an act of the sixth of queen Anne, is what we are entirely a loss to imagine, neither conceive any good why our governor choose to call our bill for granting twenty thousand pounds for the king's a for striking forty thousand pounds, without further explanation, though been repeatedly under his consideration. It would be, perhaps, too unkind to suppose, as the bill itself, and the contents of it, would in all probability be unknown to our superiors, further than the grant to the crown, he could have the least intention to misrepresent the purpose of it, and for this reason we leave entirely to his own reflection. The title of that bill is, "an act for striking forty thousand pounds in bills of credit, granting twenty thousand pounds thereof to the king's use, and to provide a fund for sinking the same; and for ap-

plying the remainder to the exchange of torn ragged bills now current in this province; the governor well knows, it no more to paper-currency the very twenty thousand pounds granted the king, and even no other reason than to call of crown, make the grant effectual."

In answer to the governor's assertion, that the French were already in possession of part of their province, they instance the language constantly used here home: to wit, that the French had invaded his majesty's territories in Virginia; also a map then lying before them, founded on authorities supplied by the board of trade and their own proprietaries, wherein every fort built by the French is placed beyond the western boundaries of Pennsylvania; and they again took refuge behind cautions minutely expressed and strongly insisted upon, in the first letter from the secretary's office, urging, that while in a state of amity, it could no good purpose to contravene them; and that the king himself, having most graciously interposed, it would be more prudent and becoming to consider him as the most proper judge of the limits of his own dominions.

In their next section, they dispute the probability and almost the possibility of the arrival of such a body as six thousand of the troops of France at the lower fort upon the Ohio, as asserted by the governor; insinuate, that such accounts would have deserved more credit, if they had been transmitted from Oswego, which they have verily passed; and from whence very minute intelligence received of the passage of those forces which first laid the foundation of the enemy's strength upon the Ohio; and leave the fact to upon its evidence.

After this referring their dispute with governor Hamilton, and the information they gave him of an instruction from the crown, not to pass any private act, or act of privilege to any individual, without a suspending clause, which had been enforced by the proprietaries, observed by any governor, they plead necessity of informing the governor, though with great reluctance, "That in the year 1735, governor Gordon passed an act for vesting effectually certain lands in George M'Call, in direct contradiction to that instruction, without least mention of a suspending clause."

And with an elevation of sentiment, style, manner seldom seen in public they finish their reply as follows:

"As we have reason to believe the assembly was then acquainted with that instruction, and as the bill particularly related to our honourable proprietaries, our last assembly, notwithstanding the indiscreet call upon them,

contented themselves, from motives prudence and moderation, with barely pointing out this transaction, in hopes our honourable proprietaries would see themselves at least equally armed with the representatives of the people both in fact and right, and thereby might be induced to join cordially with the people of this province, in vindicating our charter from the continual infraction of such instructions; which, they must operate in the manner the governor is pleased to contend for, and our proprietary instructions must be binding upon us also, the rights derived to us by the royal charter is a name only, the very essence of effectually destroyed under the sanction of which charter, a sober, industrious people, at any charge to the crown or the proprietary, first settled this wilderness, and by their frugality, and equity of their laws, laid the foundation of a flourishing colony, which already, within the ordinary life of a man, has made a considerable addition to the dominions of the crown, by an of dutiful and loyal subjects, bears rank in contributing the wealth and trade of our mother country.

"Whether the above act for granting five thousand pounds for the king's use, or the act vesting lands in George M'Call, were ever sent for the royal approbation, very little concerns us, we presume the transmitting acts the immediate duty of our proprietaries, or their lieutenants, in pursuance of the royal charter, which we look upon the anterior solemn royal instruction, the rule of their conduct, well of our own.

"Upon the whole, from what we have said, we presume it evidently appears, that proprietary instructions and restrictions upon their governors, as they have occasionally been a part of the public records at different times, have been judged and resolved by governor, council, and the representatives of the people, either,

"1. Inconsistent with the legal prerogative of the by act of parliament.

"2. Or a positive breach of the charter of privileges to people.

"3. Or absurd in their conclusions, and therefore impracticable.

"4. Or void in themselves.—Therefore,

"Whenever governor is pleased to lay his proprietary instructions before for our examination, if they should appear to be of the kind as heretofore, good judgment lead him to conclude, that such 'considerations in life' as our allegiance to the crown, or the immediate safety of the colony, &c. sufficient inducements for him to disobey them, notwithstanding any penal bonds the contrary, we cheerfully continue to grant such further sums of money for the king's use, as the cir-

cumstances of the country may bear, and in a manner we judge least burdensome to the interest of the province."

Lastly, they might be able to set all imputation and misrepresentation whatsoever at defiance, they applied themselves to find out some expedient, by which the service recommended to them by the crown might be promoted as far as in them lay, even without the concurrence of the governor. In order to which, having thoroughly weighed the contents of Thomas Robinson's letter, and the state of the provincial treasury in which was scarce five hundred pounds remaining, they resolutely resolved to raise five thousand pounds on the credit of the province, for the accommodation of the king's troops; and empowered certain members of their own to negotiate a loan, and allow such interest as should be found necessary.

The controversy, however, which this new governor had been so ingenious as to work up to such a pitch in so short a time, was, by the continuance of the same ingenuity, to be still continued as warm as ever.

Accordingly, down another message from him, in which he complains to the assembly, of the very great obscurity, unnecessary repetitions, and unmeaning paragraphs contained in their last performance; and through the whole, manifests that spirit of perverseness, which is but too prevalent with most men on the like occasions. Of the inaccuracies before acknowledged in the performance (and which perhaps unavoidable in pieces drawn up from a variety of suggestions, and subject to a variety of alterations and additions,) he takes all the advantage he can; and does indeed foul the water, though he cannot divert the current.

It would be endless to wade through all the minuteness of so tedious a contest; odds if the reader not leave the writer in the midst of it.

To be as concise as possible, therefore: his paper is as insidious as that of the assembly was candid and open. He would not allow that he promised them a sight of his instructions, with regard to their bill for granting twenty thousand pounds to the king; which was so far true, because he could have none regarding that particular; he would not allow that he represented their application for those instructions, as having a tendency to alienate the affections of the people from the king; which also true, because such his representation had been confined to the expressions they had made use of concerning the invasion of their civil and religious liberties; last of all, he indeed no otherwise accounted for, than by the demand made upon them, to establish a militia, and thereby oblige those to carry arms, who made it a point of con-

science to disavow resistance by force: those expressions, would needs have it, the tendency he ascribed to them; because, "he very well knew how fond the people were of their currency," how averse to any restraint upon it." He endeavoured to embroil them with the crown, for having called the instruction in question, an infraction of the royal charter. He reproached them both with ingratitude and with injustice, for being pleased to be angry with their proprietaries. In vindicating the affections of those gentlemen to the province, he derived his argument from their interest in it; and he is peremptory, that, instead of entertaining designs to invade the just rights and privileges of the inhabitants, there was nothing they so much detested and abhorred; he adhered to the resolution he taken, nevertheless, to lay his instructions before them at that time; being sensible they were so very necessary, and that the assembly, having already declared them destructive to their liberties, they were not in a proper temper for the consideration of them; to show he was not restrained by proprietary instructions from passing bills for the defence of the country, he declares himself ready to pass a law for establishing a militia, &c. and for emitting any sum of paper-money, on proprietary terms: that is to say, on such funds as might sink the loan in five years. He perseveres in maintaining, that the sixth of the queen Anne had been shamefully slighted even in their province; because pieces of eight were then, and had been, for many years past, at seven shillings and sixpence; whereas, according to that act, they should pass for six shillings only: if money, like other commodities, would not and fix its own value, in spite of all the precautions and provisions the wit of man could invent. He also maintained, that, on a re-examination of the provincial accounts, their revenue was seven thousand three hundred and eighty-one pounds per annum, clear of the five hundred pounds per annum for sinking the five thousand pounds, formerly given for the king's use; and, that the due, and which, by the laws in being, should have been paid in the September preceding, amounted at least to fourteen thousand pounds. He averred, they could not but be sensible that the twenty thousand pounds currency they proposed to give, and which was very generous, was very insufficient to the exigence, and that it was not two pence in the pound, upon the just and real value of the estates of the province; and, in short, he said whatsoever else occurred to him, which could favour his purpose of figuring here as if he was in all respects right, the assembly in all respects wrong.

Argumentatively then, if not historically.

have the merits of the case may safely pronounce, that, if instructions may or be construed into laws, instructions are then of more value than proclamations, which do pretend any such authority.—That, though grants from the crown in the first instance matter of grace, the subject may claim of them of right.—That when the prerogative has once laid any restraint on itself, nothing short of a positive act of forfeiture, or act of parliament, can authorize any species of resumption.—That if a subsequent instruction may cancel or obviate original grant, charters, under all the sanctions the prerogative can give them, no better than quicksands.—That in the charter given to Penn, Esq. and solemnly accepted the basis of government, by his followers, there is no on the behalf of the crown, tie up the province from making the use of its credit, which is the privilege of every private subject.—That, notwithstanding the pretended sacro-sanctitude of an instruction, probationary first, neither renewed nor referred to, directly or indirectly, by majesty or his ministers afterwards, and virtually discharged by a subsequent act of parliament, which expressly restrained some colonies, and consequently left the in of their ancient liberty, the governor was notoriously ready to dispense with it on proprietary terms.—That the difference five and ten years for sinking the bills, was a point in which the national interest had no concern.—That if the eastern colonies, which those restrained by the said act, might nevertheless, in case of exigence, make new issues of paper-money, those unrestrained might surely do the like on such terms, and after a mode, as appeared most reasonable to themselves.—That, according to the representations of the governor to the assembly, if true, the of the province, if not of the public, depended on their giving a supply.—That, consequently, no exigency could be more pressing than the present, nor emission of paper-money better warranted.—And that he could, nevertheless, leave the province exposed to all the calamities which that exigence could possibly bring upon it, or upon the service in general, rather than give up one proprietary item: whereas the difficulty imposed upon the people manifestly either be a prey to their invaders, or give up every privilege that made their country worth defending: shows, in the fullest, clearest, and most unanswerable that all proprietary interposition between the sovereign and subject, is alike injurious to both; and that the solecism: *imperium in imperia*, could hardly be more emphatically illustrated.

To under difficulty, the as-

sembly thought high time make their appeal; in humble confidence, and modest state of their would recommend them to royal protection, and shew them malignity of their ad-

That the governor, however, might not, in the mean time, remain ignorant of their intentions, they made another application to him by message; in which they apprised him of what they had done, and of their joining issue with him in submitting their cause to his majesty's decision; as also, of their inclination to adjourn till May, for the sake of their own private affairs, to relieve the province from the expense they at, and suspend the business which a contest, like to be endless, and in which they were treated with so little decency, had given to them. And having thus, as they observed, reduced what immediately concerned them, within a narrow compass, they first declare, it was hard for them to conjecture, how the governor came by his knowledge of the people's fondness of their currency, and restraints on that head: seeing they had not petitioned for any increase of it, nor the assembly offered any such bill, during his administration, except that which comprehended the sum given for the king's use, and that only as the best method they could devise for making the grant effectual. On the behalf of the assemblies, they insinuate, that when they offer bills they were but for a very moderate sum, founded on minute calculations of their trade, and guarded against the danger of depreciation, by such securities as long experience had shown to be effectual. Proceeding then to the governor's re-assertion concerning the shameful slights put the money-act of queen Anne, they appeal to the testimony of the board of trade in favour of their an reasonable act, and the royal sanction given thereto, by which it is declared, that their provincial bills of credit lawful money of America, according to the said act of queen Anne; also to the course of exchange ever since, as a full confutation of his charge. They further plead a necessity to differ from him in his of the public money; him the computations he relied upon were made without skill, a sufficient knowledge of their laws; adhere to the justice and rectitude of their own state; maintain, that by laws in being, seven thousand pounds the most they had power over, which since their last settlement, had been greatly reduced by the very heavy charges of government; and, having recapitulated what governor had been pleased to say concerning the insufficiency of their grant, &c. conclude in following spirited

“What the governor may think sufficient, is as much a mystery as he may appre-

head his proprietary instructions are; but, we presume, ■ may be sufficient for all the purposes in sir Thomas Robinson's ■ letter, and as much or more, than we think, can be reasonably expected from us. How the go- ■ became ■ suddenly acquainted ■ the real value of our estates, is not easy to conceive; but we know from long experience, having many of us received our birth in this province, that the inhabitants are ■ generally wealthy or rich, though we believe them to be, in the main, frugal and industrious, yet it is evident that their ■ greatly incumbered with their ■ to the public. From these considerations, ■ are obliged to think the governor's estimation of our wealth is undoubtedly too high, unless he includes the value of the proprietary lands; for, by the ■ part of a committee of assembly ■ August, 1794, it appears, that the taxables of this province did ■ exceed twenty-two thousand; and the grant we have offered of twenty thousand pounds, from the best calculations we can make, doth ■ least amount to five times ■ that hath ■ been raised by a two-penny tax through this province. As ■ think the governor cannot be a competent judge of the real value of our estates, in this little time of his administration, and as we have now submitted ■ cause ■ higher determination, ■ conceive ourselves ■ concerned in ■ computations of ■ estates, whatever they may be.

"The governor ■ pleased to inform ■ That the proprietaries are too nearly interested in the prosperity of this country, to do any thing to its prejudice, and he should have imagined that the people could not now stand in need of any proofs of the proprietary affection, ■ suspect them of having any designs to invade their just rights and privileges, which, he is confident, they detest and abhor." We cannot suppose the governor ■ would ■ they detest and abhor our just rights and privileges; and yet ■ are convinced the clause in their commission ■ him, their lieutenant, whereby they empower him ■ act as fully and amply, to all intents, constructions, and purposes, ■ they themselves might ■ could do, ■ they personally present, "You, (our governor) following and observing such orders, instructions, and directions, as you ■ have, or hereafter, from time ■ time, shall receive from us, or our heirs," is not only repugnant to ■ just rights and privileges, but impracticable, against common ■ against law, and void in itself; and yet if the governor should think his hands are so tied up by these instructions, that he ■ not ■ liberty to act for the public good, ■ must conclude they are of ■ consequence ■ at all times, and particularly in ■ of imminent danger, ■ only ■ ourselves, but to the British interest in North America."

To this message the governor returned a short answer in these words:

"Gentlemen,

"I am very much surprised at your proposal to adjourn till May, as you have made no provision for the defence of the province, or granted the supplies expected by the crown, and recommended by the secretary of state's letters: I must, therefore, object to the proposed adjournment, while things remain in this situation, and hope you will, in consideration of the danger to which your country stands exposed, continue sitting till you have granted the supplies to the crown, and effectually provided for the defence of the people you represent; but if you are determined to rise ■ time without doing any thing, remember it ■ your ■ act, and all the fatal consequences that may ■ your leaving ■ province in this ■ state. ■ lie ■ your doors."

The House in return unanimously resolved, "That the governor has been respectfully and repeatedly solicited by ■ house, to pass a bill presented ■ him, for granting twenty thousand pounds for the king's use, which, in our opinion would have answered the expectations of the crown from this province, as signified by the secretary of state's letters, had the governor been pleased to have given it his assent; therefore whatever ill consequences ensue, from supplies ■ having been granted at this critical juncture. ■ lie at his door."

The governor, by his secretary, demanded a copy of their minutes. The house ordered the minutes both of this and their last sessions to be printed, ■ that a copy finished should be delivered ■ governor: and, having ■ resolved to adhere ■ their adjournment, adjourned accordingly.

In the beginning of March, however, the governor thought fit to re-assemble them, and assigned the ■ of general Braddock, the necessity of considering what he had to propose ■ with ■ delay, and making the provisions expected by his majesty for the service in time, ■ his reasons ■ doing. In the ■ message he also acquainted them. "That he had issued a commission to a number of men acquainted with the country, to form a plan of opening roads from the inhabitants ■ of ■ province westward towards the Ohio, ■ requisition of sir John St. Clair, quarter-master-general, to facilitate ■ march of the troops, conveyance of provisions, &c. and also ■ prepare an estimate of the expense, which he called upon them to provide for; also, to be enabled to take such a part in the ■ proposed by the eastern governments for the maintenance of his majesty's just rights, &c. as became the honour and interest of a province circumstanced ■ theirs. Having ■ premised, that it

was paid the large supply of provisions furnished to the French from these colonies, not Pennsylvania in particular, which he acknowledged had little concern in the unnatural trade, had enabled the enemy to support their forces in America, he informed them, he had given the officers of the colonies preventive orders in relation thereto; and added, that he made no doubt of their joining with him in a law to make those orders more effectual. The [redacted] of the eastern governments, that Pennsylvania would join with them in their operations to frustrate the schemes of the French, made [redacted] topic; and he grafted [redacted] hope upon it, that they would enable him to take such part as became the honour and interest of a province, circumstanced like theirs. The establishment of a post between Philadelphia and a place called Winchester, [redacted] the desire of general Braddock, was what he recommended next; and that again was followed by another desire of the same general's, that the quotas for the common fund of the several provinces, recommended by the secretary of state, might [redacted] lodged in the hands of a treasurer, subject to his demands, in order to expedite business; and the general being perfectly disinterested, [redacted] also willing to account for his disbursements, he hoped they would put it in his power to return him a satisfactory answer; and for a conclusion, [redacted] recommended vigour, unanimity, and despatch, that the happy opportunity put into the hands of the colonies by his majesty's paternal care, &c. might not be lost."

That there was [redacted] retrospect in this message was some recommendation of it; but the merit of this forbearance lasted no longer than till the afternoon of the very same day, when the house was artfully perplexed with [redacted] messages more, which could not but revive the memory of past dissensions, and consequently [redacted] ill [redacted] they [redacted] produced. The [redacted] contained a reprimand for their having printed sir T. Robinson's letters, communicated [redacted] them without his, the governor's, privilege [redacted] consent, and a caution against the publication of them; [redacted] intimation, that though he had letters and other papers relating to his majesty's service to communicate to them, he did not think it safe to do it, without proper assurances that the contents should remain a secret. The second being nearly as short, and rather [redacted] extraordinary, shall [redacted] given in [redacted] own words:

"Gentlemen,

"On the tenth of January last, I demanded, by the secretary, a copy of the minutes of your proceedings, which you promised to send [redacted] but not receiving them, I did, on the twenty-ninth of the same month, by letter to the speaker, again demand them, and have frequently, by the secretary, reiterated my request, but could not obtain a sight of them till

the twelfth instant, above two months after your rising, and then only a part of them were sent me [redacted] print, and I have not yet seen the whole of them.

"The keeping your proceedings thus a secret from me, I take to be a very unconstitutional and extraordinary [redacted], liable to a construction that I do not choose at present to put upon it, but only to acquaint you that I expect you will order your clerk to attend me every night [redacted] the minutes of the day, that I may know what [redacted] done and doing in your house, and be able in time to lay the same before his majesty [redacted] ministers, who expect to be regularly informed of the measures taking by the legislatures of the colonies."

Both were answered the next day in substance thus, "That they were humbly of opinion, such letters as those in question, containing the commands of [redacted] crown, ought generally to be inserted in their minutes as being the foundation of their proceedings, and what might be necessary for their justification, that those letters were communicated without the least caution to keep the contents a secret; that the latter, which was the most [redacted] of the two, [redacted] a circular letter which had been sent in effect to all the provinces and colonies in North America, and of which the substance, [redacted] they [redacted] informed, had been printed in [redacted] speeches of several governors to their assemblies; that the design of sending two regiments from England, and raising two [redacted] in America, [redacted] no secret, having been avowed [redacted] in the London Gazette; that the governor himself had given very full and particular abstracts of those letters, in his messages which had been printed in their own gazettes long before the house adjourned, and passed without objection; that they were, therefore, surprised at the exceptions started now to the insertion of them in their minutes, and, no single inconvenience [redacted] result from it, having been pointed out, were not inclined [redacted] expunge them; that knowing [redacted] what [redacted] [redacted] secrecy would be satisfactory, they could only say, that whenever it should appear to the house to be necessary for the king's service, or the public good, to keep any matters laid before them secret, proper measures, they doubted not, would [redacted] taken for that purpose." Proceeding [redacted] what related [redacted] the governor's demand of a copy of their minutes, they adjourned, "That they [redacted] ordered the said minutes to be printed with all convenient speed, and, when finished, that a copy should be delivered as required; that as soon as they could be copied and revised by a committee of the house, they were put to press; and that the governor had been supplied with [redacted] copy of the greatest part of them even before they were finished; that [redacted] had been the constant practice of the house to have their

minutes so revised, and to postpone the said revision, till after the rising of the house; and that till this was done, no copies had ever been given out, unless of special votes on special occasions; that the principal matters contained in these minutes were generally to find in the governor's speeches in answer, and the answers of the house; and that these, together with such votes as were most material, were, in that part, immediately printed in the newspapers, that the rest was chiefly matter of form; that, therefore, as it would be inconvenient to the house to make up and perfect their votes daily, so as to send a copy to the governor, as they saw no public service concerned in it, nor knew of any right in the governor so peremptorily to demand it, they were not inclined to alter their ancient custom; that the charge of taking extraordinary or unconstitutional measures to keep their proceedings a secret from him, was void of any real foundation; that the instruction put by the governor on their conduct, they neither knew nor could guess what it was; that whatever it was, they had rather it had been spoken plainly, than insinuated, because they might then have known how to justify themselves: that, however, being conscious of firmest loyalty to the crown, and the upright intentions of the people they represented, they were not very apprehensive of any prejudice from such insinuations; the reflecting on the weight and importance of the matter laid before them in the morning message, which, moreover, so earnestly pressed them to unanimity and despatch, they could not but be surprised at receiving messages of so different a kind in the afternoon, and which could only tend to produce division and delay, &c.—And that, therefore, they humbly entreated the governor to suspend those his irritating accusations and insolent demands till some of his leisure, and that he would permit them to proceed, without any farther interruption, on the business for which he had been pleased to call them together."

Not being diverted, however, from the pursuit he was in by this caution, he sent a letter to the printers the assembly (one of whom was a member) forbidding them to publish the secretary of state's letters; and ordered his secretary to inspect the journals of the house from the 1st to the 20th of March then current, inclusive, to take a copy thereof. Upon the former of which measures they resolved, that the said letters had been properly inserted; that the house by sufficient shows, that the expunging those letters was both improper and unnecessary; that the act of directing what should, or should not be inserted in the minutes of the house, was solely in the house; that the governor had not, nor could have, any right to interfere therein:

and they ordered the printer to proceed with the publication of their minutes as they stood; and with regard to the latter, they informed the governor by message, "that when their minutes should be revised and printed after the end of the session according to long continued custom, a fair copy should be presented to the governor; but that till then they hoped the governor would excuse them if they did not permit any body to inspect them, nor any copy of them to be taken."

Here this session ended: it was yet subsisting, the governor of the house, as a secret which he recommended to them to keep so, "that governor Shirley, with some of his council and assembly, having, among other things, formed a design to visit a fort at Crown Point, within the limits of his majesty's territories, sent commissioners to the governor and other governments, to solicit their contributions to the same undertaking: that the said governor had written to him fully upon this head, that he should communicate his letter to them, that they might see what was expected from the province; that Mr. Quincy, his commissioner, was actually arrived, and made his application to him; and that he heartily recommended it to them to grant the necessary supplies for that important service."

Upon the heels of this, by another message he also informed them of, that he congratulated them upon the arrival of the transports, with his forces and artillery destined for the American service in Virginia; after which he proceeded, as in the last session, to say, "that his majesty's care and affection for his subjects in America having induced him to so large and seasonable an assistance, for the recovery of those possessions which the French, contrary to the faith of treaties, had seized, they would be greatly wanting to themselves if they neglected the opportunity to frustrate the attempts of those perfidious people; that to render his majesty's measures effectual, it was expected, that the colonies should send an additional number of forces, and should furnish provisions and all necessaries to those employed for their protection: as they would see by a letter from the earl of Halifax, and another from general Braddock, which was to be laid before them; that this being so reasonable in itself, he could not doubt but being readily complied with by the provinces, in proportion to their abilities; and he hoped, that as Pennsylvania was so interested in the event, they would exert themselves as became the representatives of a province actually invaded, having their all depending on the success of the present enterprise; that he earnestly besought them to consider what might be the consequence of their refusing to grant the necessary supplies, as they might be assured his majesty would not condescend to

recommend to them in vain the making provision for their defence, but would doubtless, upon their refusal, be enabled by his parliament to oblige those who reaped the immediate benefit of such a chargeable protection to contribute their proportion of it; and that if by a disappointment in the articles expected to be supplied by them, the great expense the nation had been put to for the security of these invaluable branches of the empire, should be rendered unavailable, they could think they would justly draw upon themselves the resentment of his majesty, and of parliament."

How unusual soever such language on such occasions, and how inconsistent soever with the claims and rights of freemen, the assembly only expressed their resentments of it, but proceeded very same day to do all that was required of them with all the alacrity imaginable.

Twenty-five thousand pounds was the sum they granted the king's five thousand pounds of it appropriated to the sum borrowed for the at the last sitting; ten thousand pounds for the purchase of provisions, at the request of the government of Massachusetts-bay, for victualling their forces; five thousand pounds, answer the occasional draughts of general Braddock; the remaining five thousand for the maintenance of such Indians as had taken refuge in the province, and other contingent expenses in their votes expressed: the whole was to be raised by an emission of paper bills to the same amount, and to be sunk by an extension of the excise for ten years.

If the other part of the former bill concerning torn and ragged bills, was mentioned, or at all insisted upon, it could not be carried; the majority on this occasion resolving, that no provincial consideration of that kind should furnish the least pretence for any obstruction to the general service.

Upon the 28th of March, 1755, this bill left with the governor, and the first of the month they followed message, viz.

"Gentlemen,

"Your bill striking twenty-five thousand pounds, being contrary to his majesty's instructions relating to paper-money, and of the same nature with the bill I refused my the last sitting of assembly, I pass into law, without a breach of duty to the crown; and I am concerned you should offer such a bill when you had agreed to submit the between us, upon one of the kind, to his majesty.

"This is a time of imminent danger, and the forces raised and destined for the service of the colonies wait the supplies from this province, I again entreat you to fall upon some other method of raising money, that we

may not lose this happy opportunity of recovering his majesty's dominions, invaded by the subjects of the French king, and preventing their unjust encroachments the future.

"But if these repeated recommendations of so reasonable a supply, shall fail of the desired effect, and any ill consequences should attend it, his majesty and his ministers, a British parliament, your constituents, and the neighbouring governments will be at loss on whom to lay the blame."

This message was also accompanied with another, dated 31, in which the governor having referred to be given them by his secretary, of several matters committed to the care of one Scarroady, an Indian Esau, by the Ohio Indians, made use of it as an additional road to the assembly, in the manner following:

"Gentlemen,

"The disposition and measures of the at this time, that I must earnestly recommend it to you to make provision for the ensuing treaty, as well as to enable me to take proper notice of this chief, who is so hearty in interest, and of the young men he has brought along with him, in order to be employed in some services, which, says, of importance to the general cause.

"It will readily occur to you, that the several western Indians, who wish well to the English interest, wait with impatience for the return of this chief, and will their measures according to the report which he shall make to them of our of them; for which reason, it will be of the last consequence, that this chief, these young men, go from us well clothed, and perfectly well pleased."

On the day also, Mr. Quincy, commissioner of the province from the government of Massachusetts-bay, presented a memorial to the assembly, which containing an unquestionable testimonial in their favour, directed to be inserted entire as follows, viz.

"Gentlemen,

"I am extremely sorry I find, that notwithstanding the motives and arguments I was able to honour lieutenant-governor, he did not see his way clear to give his to the money-bill you have laid him.

"The cheerfulness with which you therein granted thousand pounds, for victualling the forces intended to march from New England to secure his majesty's territories, leaves me no room to doubt your zeal for his majesty's service, your hearty with the government I have the honour to represent, in the measures now proposed for our common safety; and therefore, though you are unhappily disappointed in the manner of

your grant, I flatter myself you will not fail to find some other means of rendering it effectual.

"The advantages which a speedy vigorous execution of those promises to the colonies, and the mischief which a neglect of them will entail upon us and our posterity, are clearly pointed out, and fully illustrated in the memorial which have been the subject of your late deliberations.

"In rendering this important service to the crown, to the British nation, and to their fellow-citizens in the other governments, New England offers to spend her treasure as freely as her blood, and, were her abilities equal to her zeal, would cheerfully bear the whole expense, and the whole hazard of the enterprise. The yearly charge she is subjected to, by her vicinity to the French, and the necessity of defending so extensive a frontier from the incursions of those perfidious people, their Indians, both in time of peace and war, has so exhausted her finances, and burdened her with such a load of debt, that the assistance of the neighbouring more wealthy colonies, she must drop the design, however promising and glorious, as utterly impracticable.

"Happy will your province be, gentlemen, if you can still keep those dangerous people at a distance from your borders, by which you will be free from the many mischiefs we have always suffered by their neighbourhood.

"The opportunity is offered you, and, I am braced, will, by the blessing of God, secure your future peace and prosperity. But whatever you do, should be determined instantly, for the season flies, and the delay may be as pernicious as a refusal.

"I have just received advice, that Connecticut has voted fifteen hundred men, and that even the little government of Rhode Island has granted four hundred. The expense of which will be asked of you. New York seems heartily disposed to do her part; and there is reason to think that your good example may have an advantageous influence on the neighbours of New Jersey.

"I need say no more to urge you to a speedy and effectual resolution, but conclude, with the most respect, gentlemen, Yours, &c."

"The rest of the day was spent in debates, and it was natural it should; but on the morrow they resolved to raise ten thousand pounds on the credit of the province, in the manner they had done before; that is to say, five thousand pounds to repay the money so before borrowed for victualling the king's troops, and ten thousand pounds to answer the request of the Massachusetts government, so earnestly enforced by Mr. Quincy.

Thus one would think, they had done all that could be reasonably required of men: they dropped the particular of pro-

vince; they overlooked whatever was offensive in the governor's messages and behaviour to them, they had forborne all altercation thereon; and Mr. Quincy, on behalf of the government he represented, presented them such a paper of acknowledgment, as abundantly verifies all that he here said of them, to wit:

"Sir.—The sum which this honourable assembly has granted to his majesty's use, and appropriated for victualling the troops intended to be marched for securing his majesty's territories, is an instance of your concern and zeal for the public safety, which I doubt not will be highly acceptable to his majesty. And it is made a consequence of my application to you, I beg leave to return you my grateful thanks and acknowledgments; and to assure you, in the name and behalf of the government I have the honour to represent, that it will be duly applied to the purposes for which it is granted."

The governor, however, dissatisfied, because disappointed and defeated, first evaded the assembly's demand of the restitution of their bill according to custom, and then refused it, saying, "That it was a bill of so extraordinary a nature, that he thought it his duty to lay it before his majesty, and should keep it for that purpose."

He also informed them by message of intelligence he had received, that the French had fitted out fifteen sail of the line, with which they were sending out six thousand land forces, and that the king's ministers were not in the secret of their destination; yet as they were bound for America, and could not be ignorant that Pennsylvania was both a primitive and defenceless country, he thought it his duty to call upon them to enable him to put it into a posture of defence, by establishing a regular militia, and providing the necessary arms of war.

This message was dated April 3d, and yet on the 9th following he advised them to make a short adjournment, because he was to receive the governors Shirley and De Lancey, that evening, and was to accompany them to Annapolis, there to confer with general Braddock, and the governors Sharpe of Maryland, and Dinwiddie of Virginia; after which, it was probable, he should have several matters to lay before the assembly; but, as a parting stroke, he called upon them to make some provision for Scarborough, before mentioned, and the young men, which they did—not without some wholesome hints, that they had been long enough already a charge to the province: that there were proper lands where, and it was a proper season when, they might both hunt, and plant their corn by which they might provide for themselves; and that as to the Indian treaty they had been required to make provision for, the governor could not expect they could make any immediate resolution,

till they had received necessary information concerning it.

It was in this manner they parted. The adjournment they made was only to the 12th of May, and yet the governor both complained of that term as too long, and said he should call them sooner if there was occasion. When they met, they gave the governor notice as usual, and that they were ready to receive whatever he had to lay before them. The governor's answer was, that he had nothing to lay before them present but the German bill; a bill, that is to say, recommended by the governor himself, from the notorious necessity of it, for preventing the importation of German or other passengers or servants in too great numbers in one vessel, and for preventing the spreading of contagious distempers, imported by or together with them, &c. This had been prepared by the house at their last sitting, and sent up to the governor; had been returned amendments by him; some of these amendments had been adopted: and then the bill had been again sent up, with a desire from the house, that the governor would be pleased to pass the same as it then stood. This he had not been pleased to do, but on the contrary had referred it to the consideration of his council, by whose advice he had been determined to adhere to his amendments; under which declaration it was now again sent down to the house; who having appointed a committee to draw up a message to the governor, representing the inconveniences to be apprehended from the said amendments, and agreed to that message, on the report of the same, came to a resolution of adjourning on the morrow to the first of September.

To my this message was of the most pathetic, rational, and interesting kind, is to say the least that can be said of it: it explained the evil to be remedied, and the consequences to be apprehended from a continuance of it, in the most affecting terms; it demonstrated, that the amendments insisted upon by the governor were calculated to deprive it of all its vigour and utility; that in effect the province was to be as much exposed to the same nuisances and dangers as ever; and what was the most offence of all, by the following paragraph the inhabitants were led to the very heart of so crying a grievance.

"By our charters, and the laws of this province, the whole legislative power is vested in the governor and the representatives of the people; we know of no other negative upon our bills but what the governor himself has; we could wish he had been pleased to have exercised his own judgment upon this bill, referring the consideration of it to a committee of his council, most of them such, as we are informed, who are, or have lately been, concerned in the importa-

tions, the abuses of which this bill was designed to regulate and redress."

Now, whichever party was in the right, can it be said, that the king, or the supply for his service, or any one of the points in the preceding bill agitated, any concern in the rise, progress, or issue of the bill? has it not been already observed, to the honour of the assembly, how cautiously and prudently they avoided whatever could tend to widen the breach on any of these points? Is it not fresh before us, that, even for want of provocation, the governor himself was forced both to part with them, and meet them again in peace. And yet having declared as we have seen, that he had nothing to communicate to them, consequently nothing to say of them, other than what related to this German bill; did he take the hint from hence to use them by message in the following extraordinary manner, viz.

"Gentlemen,

"When I summoned you together on the 17th of March last, I was in hopes you would bring with you inclinations to promote the public service, by granting the supplies expected by the crown, and by putting this province into a posture of defence; but I am sorry to find, that neither the danger to which this country stands exposed, nor his majesty's repeated and affectionate calls, have had any weight with you.

"The bill you sent me for striking twenty-five thousand pounds, was of a more extraordinary nature than that I refused my assent to in the winter sessions, as it gave general Braddock a power over no more than five thousand pounds, subjected the remaining twenty thousand, and all the surplus of the year for eleven years to the disposition of some of the members of your house, and to the assembly for the time being.

"The offering money in a war, and upon terms that you very well knew I could not, consistent with my duty to the crown, to, is, in my opinion, trifling with the king's commands, and amounts to a refusal to give at all; and I am satisfied will be seen in this light by my superiors; who, by your bill above-mentioned, which I shall lay before them, and by the conduct of your conduct since you have been made acquainted with the designs of the French, will be convinced, that your resolutions are, and have been, to the advantage of your country's danger, to aggrandize and render permanent your own power and authority, and to destroy that of the crown. That it is for this purpose, and to promote your scheme of future independency, you are grasping at the disposition of all public money, and the power of filling all the offices of government, especially those of the revenue; when his majesty and his na-

pounds of the sum was appropriated for provisions bought and given for the use of forces in Virginia, under general Braddock; thousand pounds was given to buy provisions. New England forces under his command; five thousand pounds more was subjected to his order, and he disposed of for the king's service as he should think fit; and the remaining five thousand pounds was appropriated for the subsistence of Indians taking refuge in this province, payment of posts or expresses, hire of carriages, clearing of roads, and other necessary contingent expenses for king's service, might incumbent this government to discharge. Thus twenty-five thousand pounds appropriated to the king's service; almost all of it to the immediate use of general Braddock, or to such purposes by especially recommended in his letters, laid the house by the governor. The members of the house, mentioned by the governor, were to have share in the disposition of it; it was disposed of by the bill, and they could only have the trouble of laying it out according to the appropriation, and keeping the accounts. This truth, and well known the governor, if he perused our bill with any degree of attention; how differently it represented the governor's message! it called only, 'a bill for striking twenty-five thousand pounds; which is but part of the title, the words, 'and for giving the king's use,' being (as it would seem) carefully omitted, lest they might militate against the assertion which immediately follows, that, 'twenty thousand pounds of it was subjected to the disposition of some members of the house, and of the assembly for the time being.' Then said, 'it gave general Braddock a power over no more than five thousand pounds, because gave him a power to draw for, and appropriate as he pleased, that sum, though the twenty-five thousand pounds (except a small part for the support of Indian refugees, which is likewise for king's service) appropriated for his army's use, or services by him required; and we cannot learn any other colony besides, hath given, offered to give, gentleman a power over as many pence. Great subtlety and dexterity appear in this manner of disguising truths, and changing appearances, but we see in it very little candour and ingenuity.

"In paragraph of governor's message, there assertions think we equally misrepresented; we are charged with 'offering money in a way, and upon terms which we knew the governor not, consistent with his duty to the crown, consent to.' really thought, still think, it was with his duty

to the crown to refuse it; if we are mistaken, 'tis an error in judgment; we have appealed to our gracious king on this head, and we hope for a favourable determination. We are charged 'trifling with the king's commands, and refusing to give all, though have actually given great sums in obedience commands, earnestly endeavoured give much greater, which the governor refused, unless would give which think inconsistent with present just liberties and privileges, held der the royal charter. We charged with 'resolving to aggrandize our power, destroy that of the crown;' a charge as we conceive, utterly groundless and for which we have never given the least foundation. We are charged with a 'scheme of independency.' We have no such scheme. ever had; nor do we, as a part of the legislature, desire independency but what the constitution authorises, which gives us a right to judge for ourselves and our constituents, of the utility and propriety of laws, or modes of laws, about to be made; and does not yet, and we could never will, oblige us to make laws by disposition of all public money, and at the power of filling all the offices of government: a charge, conceive, equally groundless and invidious; we have, by law, a right to dispose of public money, and we cannot be properly to grasp what we are in possession of; that part of the public money, the governor receives, arising by license great it is, he disposes of as he pleases, and have never attempted to interfere in it; can one instance be given of our attempting to fill any office, which we are not by some express law impowered to. But heaviest charge of this paragraph concludes it; the governor is pleased say, 'when his majesty and the nation are at the expense of sending troops for the protection of these colonies, you refuse furnish them with provisions necessary carriages, though your country is of both; unless you can time encroach upon the rights of the crown.' This charge is really amazing! it requires, however, no other answer, than a simple relation of fact. In the same session, and as it appears there was no hope of obtaining for giving twenty thousand pounds to the king's many weeks before the forces arrived, voted and gave five thousand pounds to purchase provisions and other necessaries for those forces; these provisions accordingly bought, and are sent to Virginia, being the full quantity required of us: have since given ten thousand pounds purchase provisions for the New-England forces; it given as soon as requested, and before troops were raised; provisions

of them actually purchased, great part sent away. All will probably be at the place appointed before they are wanted. We gave not a pound of provision less than was asked of us. The carriages required of us have been furnished. This has been done with the greatest readiness. Alacrity, we conceive, without the least encroachment on the rights of the crown, 'borrowing money on our credit' (which we thought every private man a right to do, he had any credit) be indeed such an encroach-

— Indeed the next paragraph begins with charging this upon crime, 'you have, the governor is pleased to say, by a vote of your house, without consent of the government, empowered a committee of your members to borrow money upon the credit of the assembly, and to dispose of the same to certain uses in the vote mentioned.' This caution in expressing the uses, a stranger might imagine, that they were wicked, if not treasonable uses, and that the governor, out of mere tenderness for his people, forbore to explain them; but the uses mentioned in the votes, are, to purchase fresh victuals, and other necessaries, for the use of the king's troops at their arrival; and to purchase and transport provisions requested by the government of the Massachusetts-bay, to victual the forces about to march for securing his majesty's territories. These are the uses, in the votes mentioned, and the only uses; and we conceive for touching them gently by the name of certain uses, unless the governor thought, that being more explicit on the uses, might tend to lessen, in degree, the heinous crime of borrowing money on our credit.

"The governor is pleased to add, 'you have also, by votes and resolves, of your own house, created bills, and notes of credit, made payable to the bearers thereof, to the amount of fifteen thousand pounds, which you have issued in lieu of money, and they are now circulating in this province, without the approbation of the government.' This charge, we presume, will, the next, vanish on a little explanation. By the laws of this province in force, and which have received the royal assent, the disposition of the interest-money, and excise, is vested in the assembly for the time being: out of this the assemblies have, from time to time, defrayed the charges of government. The method of payment is always this; when an account against the public was allowed, or expense for public service agreed to, an order issued, drawn on the treasurer, or trustee of the loan-office, and signed by the speaker, the clerk, by order of the house. As these orders were generally paid on sight, they naturally obtained some credit, and some-

times passed through several hands before payment was demanded. At last settlement of the public accounts, it appeared, that a considerable sum of interest and excise-money, over which the assembly alone had a legal power, ought to be in the hands of the treasurer and the loan-office. The governor himself was pleased to point out the money out to us, to compute the sum, and urge the house to make use of it, when in January last he returned their bill giving twenty-five thousand pounds to the king's use. The house alleged, and truly, that the money was outstanding in many hands, and could not suddenly be collected, without distressing and ruining the people. However, the credit of this fund, we voted the first five thousand pounds for provisions, and ordered the money borrowed on interest. And at the last sitting, when the governor refused to pass the bill for giving twenty-five thousand pounds to the king's use, he may be pleased to remember, that he sent us down a message in which, after the bill given for passing the bill, there are these words: 'As this is a time of imminent danger, and the forces raised and destined for the service of the colonies, must wait the supplies from this province, I again entreat you to fall upon some other method of raising money, that we may not lose this happy opportunity of recovering his majesty's dominions now invaded by the French king.' The house accordingly fell upon this other method: they gave the treasurer the power to draw for the sum on the treasurer of the loan-office, as had been usual; with this only difference, that the former draughts were payable on sight, and therefore bore no interest, these being payable in a year, to bear interest; and in the meantime the outstanding money was ordered to be got in, that the draughts might be punctually discharged. Monied men, knowing the goodness of the fund, and confiding in the justice and punctuality of the assembly, which has always honourably discharged the public debts, have voluntarily furnished the committee with cash for three draughts, which they have laid by in their chests to receive in time the interest. Thus the king's forces have been expeditiously supplied, the people have time to pay off their debts to the public, and no one is oppressed, distressed, or injured; no encroachment made on the powers of government, or any thing done that has not been usual, or which the assembly is by law empowered to do. Yet this is what the governor represents as 'creating bills of credit, and issuing in lieu of money, without the approbation of the government;' by which, persons unacquainted with the fact, might

we had been making paper-money, and issuing it on loan, or in some other manner, to produce ■ advantage ■ ourselves, and attempted ■ make it a legal tender without the governor's assent, &c. all which is more misrepresentation ■ or misapprehension, as will appear by the resolves themselves, to ■ we beg leave to refer. After ■ explanation of our conduct, we believe it ■ clearly appear, that ■ governor's insinuation, ■ if ■ had used powers dangerous to the government, is as groundless ■ it is unkind.

"The other charges, of 'denying the go- ■ to our journals, and printing the secretary of state's letters,' having been made and answered ■ former messages between the governor and the house, we think it unnecessary to take any further notice of them here. But we are surprised to find, that after having effectually given fifteen thousand pounds, in provisions and other necessities for the king's forces, maintained ■ so great an expense our Indian allies, ■ blished a constant regular post ■ rough ■ hundred miles of country, merely for the service of the army, and advanced ■ considerable sum to make ■ long and chargeable ■ through the wilderness and mountains to the Ohio, for the use of the king's forces, the whole expense of which we have engaged to defray, ■ should still be flaily told by the ■ vernor, 'That he is convinced ■ the whole ■ of our behaviour, that ■ have no design to contribute any thing towards the defence of this country.'

"The governor is pleased further to ■ for not desiring a conference on the bill to prevent the importation of Germans, or other passengers, in too great numbers in one ship ■ vessel, and ■ prevent the spreading of contagious distempers, &c. We ■ that it is sometimes practised, when the governor and assembly ■ in judgment concerning a bill, to request a conference, if there ■ hope by such a conference to obtain an agreement; but ■ being, from many circumstances attending the bill, without such hope at present, contented ourselves with laying before the governor, in a message, our reasons for not agreeing to his proposed amendments, and submitted those reasons to his consideration; the bill may still ■ resumed, and a conference entered into ■ a future session, if there should be ■ prospect of ■ our proceeding was irregular, which we ■ was not, the governor ■ pleased to remember, he himself set us ■ irregular example ■ our last sitting, when ■ present- ■ the bill for granting twenty-five thousand pounds to the king's use; for he neither proposed any amendment, nor desired ■ conference, nor would return us our bill (when we expressly sent for ■ to be reconsidered) according ■ in ■ go-

vernment, but only acquainted us, that, 'it being ■ bill of a very extraordinary nature, he would send it home to ■ ministry,' which we hope he has accordingly done, as ■ believe it will be found, however the governor ■ have misapprehended it, to have nothing extraordinary ■ its nature, ■ inconsistent ■ duty to the crown, or assuming ■ our just rights ■ privileges.

"On the whole, while ■ find the governor transforming our ■ actions into crimes, ■ endeavouring to render the inhabitants of Pennsylvania odious ■ our gracious sovereign and his ministers, to the British nation, to all ■ neighbouring colonies, and ■ the army ■ is come to protect us; ■ cannot look upon him ■ friend ■ country. We are plain people, unpractised ■ the sleights and artifices of controversy, and have no joy ■ disputation. We ■ governor of the same disposition: and when he shall, as we hope he will, on better consideration, alter his conduct towards ■ and thereby ■ us that he ■ well ■ the province, ■ may then be able to ■ the public business together with comfort both to him and our selves; of which till then ■ have small ■ pectation."

Such ■ the language of liberty, truth and candour—we feel the force of it—we can not resist its authority! and if the governor ■ the mortification to find they had ordered ■ message and their answer to be printed in their gazettes, he had also the pleasure to find himself excused for the present by their adjournment, from the impossible task, of constructing such a reply ■ the pressure of this ■ required.

Perhaps they thought the absurdity he had fallen into, by charging them with a resolution to take advantage of their country's danger, to aggrandize ■ render permanent their own power and authority, too glaring to need any comment. Perhaps they did not think it proper to retort, that the inhabitants of a colony, ■ remote from the principal seat of empire, had abundantly ■ to apprehend from an excess of power in their governor, than the governor could possibly have from a like excess ■ in their representatives; the executive, as before observed, being a single principle always in force, ■ the legislative composed of two co-equal principles, which must always tally, or ■ no otherwise operate, than by restraining ■ controlling the operations of ■ other, as in the case before us; and, perhaps, they ■ not the resolution of the house of commons of July 2, 1678, in sight ■ that time, which was as follows, viz.

"That ■ aids and supplies granted to his majesty in parliament, ■ the sole gift of the commons; that all bills for the granting any such aids and supplies ought to begin with the ■ that it ■ undoubted ■

sole right of the [redacted] to direct, limit, [redacted] in such bills, the ends, purposes, [redacted] considerations, conditions, limitations, and qualifications, of such grants, which ought [redacted] to be changed by the house of lords." To say nothing of certain remarkable provisions of theirs in the year 1074 (which, in a course of conferences with the lords, they adhered to) to appoint a receiver of their [redacted] for the administration of the money then granted for the payment and disbanding of the army, and the payment of the same into the chamber of London, instead of the exchequer.

Their adjournment [redacted] the first of September: but they [redacted] assembled by special [redacted] on the 13th of June; and the first minute [redacted] their [redacted] of public note is, one, [redacted] specify the approbation given by the lords justices [redacted] governor Thomas's [redacted] for granting five thousand pounds out of bills of credit for the king's use. The date of this approbation is (October 9, 1744, so that it [redacted] subsequent to the king's instruction [redacted] pertinaciously insisted upon; and having, either by some accident or neglect been overlooked thus long, the governor, as we have seen, had in the December before taken the advantage to express himself thus lucrily to the assembly: "Colonel Thomas's conduct is no rule to me, nor will mine be for any one that may succeed me; and if we may judge from his not transmitting that act to England, we may presume, that he did not look upon that particular as the most recommendatory part of his administration. It is true, he was never censured for it; and, indeed, how could he, as the transaction was never made known to his majesty or his ministers."

And the next minute that follows this, concerning the said approbation, notifies,

"That sundry letters from sir Peter Halket, and colonel Dunbar were then read, acknowledging the receipt of certain presents from the house to the officers of their respective regiments, of the [redacted] considerate and acceptable kind, and returning thanks for the same."

The reason of this summons assigned by the governor in his message [redacted] to this effect, "That general Braddock having begun his march towards fort Du Quesse, had represented to him, "That in case he should reduce that fort, his intentions [redacted] to leave a garrison, with all the guns, stores, &c. he should find in it; that in [redacted] the French [redacted] abandon and destroy the fortifications, &c. and he had [redacted] to apprehend they would, [redacted] should then repair it, [redacted] construct some place of defence; but that in either case, as the artillery, stores, &c. he had with him would [redacted] absolutely necessary for the prosecution of [redacted] plan, he was determined to leave none of them behind him, and expected to have all his [redacted] of that kind, [redacted] all as provisions for his garrison, supplied by the governments of Virginia,

Maryland, and Pennsylvania; and, that he might not be delayed in [redacted] operations, those things might be immediately forwarded to him under proper convoys;" adding, that the said general had lately received intelligence, which he had communicated to him, that the French, together with their Indians, intended, as [redacted] [redacted] army [redacted] far advanced, to fall upon the [redacted] country; [redacted] that, though the general thought it a bravado, he also thought it advisable to take [redacted] possible precautions against it; [redacted] he [redacted] called them together upon this application and intelligence; [redacted] he had recommended it to them to enable him [redacted] furnish such of the things demanded [redacted] were proper for the province, and [redacted] conduct them to the places where they would [redacted] wanted, which could not be well done without a strong guard; as also by a militia or otherwise, to protect the said back country against the incursions of the enemy; that, upon the receipt of the general's letter, he had written to the governors of Virginia and Maryland, to know what shares of these supplies their governments would respectively furnish; that he needed not inform the point by any other arguments, than that fort Du Quesse [redacted] within their province, [redacted] that the great expense the nation [redacted] at on this occasion would be thrown away, his majesty's intentions rendered abortive, and his arms dishonoured, if the countries the said general should recover were left in such a naked condition, that the French might take possession of them again, as soon as the army should be withdrawn, &c.

A very little skill in political matters would have shown those concerned, that there was rather more management concealed under this speech than [redacted] strictly necessary, and put them [redacted] their guard accordingly.

The assembly of Pennsylvania had some wisdom [redacted] well [redacted] much plainness: and therefore, by way of preliminary, desired [redacted] have the letter in their custody, which [redacted] to be the ground of their proceedings. The governor hesitated: said it contained many matters [redacted] proper to be made public; that it would [redacted] be safe, therefore, unless the house would previously promise him it should not be printed; but however, he would show it to a committee, if the house would appoint [redacted] for that purpose. The house on the other hand, renewed their request in writing, alleged that it had always been the custom, when assemblies were called together on occasion of letters received, to communicate those letters; that giving a committee a sight of letters, [redacted] which any important step [redacted] taken, did [redacted] sufficient; but that the letters should lie before the house to be read as often as necessary to [redacted] right understanding of the matters they contained or required; that the governor might safely put his trust in the prudence of the house; in fine, they would hear of no al-

ternative, since the importance of the contents of that letter had been urged — the reason for calling them together — an unreasonable time of the year: and, — they could not take — letter into consideration without seeing it, they hoped he would not, by starting new methods of proceeding, and engaging them in trivial disputes, any longer obstruct or delay the public service.

This — done — sixteenth. The next day, instead of an answer, the governor sent them down a brace of — messages. One in the morning, giving them — understand, "That the roads they had ordered to be made to the Ohio would — attended with a much greater expense than was — first imagined; that the money sent to the commissaries was already spent; that — — wanting; and, that the general having discharged the soldiers' wives out of the army, with a stoppage of one shilling sterling a week out of their husband's pay for their subsistence, it would become the compassion of the province — supply what would be farther necessary for that purpose;" and another in the afternoon, containing — intelligence. Intelligence he himself had now received, and had forwarded to the general: namely, that several bodies of troops had passed from Canada over the lake Ontario in their way to the Ohio, — join the forces already there; that the French — doing their utmost to engage the Indians on their side; and, rather than fail, — determined to oppose general Braddock with the whole force of Canada. Containing also — repetition of what in effect he had said before concerning the back country; heightened with some — apprehensions, that when the troops were removed, the enemy might either cut off or greatly interrupt their communication with the province, which might be every way attended with fatal consequences. And all was made use of to authorize a fresh demand for a militia-law, and a — demand for a supply to enable him — build strong houses — the new road — the Ohio, and to maintain such a number of men — should be necessary to keep the communication between the province and the army open, escort provisions, stores, &c. that the general might neither — forced — weaken his army by making detachments — from it, — expose those detachments to be surprised and cut off: and that he might occasionally make use of them as auxiliaries too, in — numbers brought against him should make such — reinforcement necessary: — (after having rung all the changes — such a medley of demands and suggestions in such hands was capable of) making the province answerable, — usual, in case of non-compliance, for all mischiefs.

— 21st, however, when the house (having taken into consideration, that the fifteen thousand pounds given to the king's use

in the preceding April, — paid — of the — nery — the disposition of the house, which — almost exhausted, could not answer all the purposes intended by the bill for granting twenty-five thousand pounds to which the governor received — his assent) had already prepared two money-bills, one for striking ten thousand pounds for the exchange of defaced bills, and one of fifteen thousand pounds more for the king's use, the governor's — concerning general Braddock's letter came; and therein he asserted, that the governor for the time being — a right — call the assembly together whenever he thought the public service required it; that his speeches or messages were — sufficient foundation for them to proceed upon; that they having, by the plenitude of their own power, not only given their orders to the printers to proceed with the publication of the secretary of state's letters, — contradiction to his to the contrary, but also claimed a right of doing the — by other papers laid before them, they could not be at a loss for the reason of his caution on the present occasion: that he being answerable for every secret of state that should be communicated to him for the king's service, and by the nature of his station the sole and only judge what letters and papers were proper to be made public, did expect a promise of secrecy from the house, either verbal — otherwise, — something tantamount to it, and — otherwise he should not communicate — it.

And, on the twenty-sixth following, the assembly returned their answer. In the opening of which, having admitted the governor's right or power to call them together, they, nevertheless, insist — the usual manner of exercising it: that is to say, with — proper regard to the convenience of the members — their harvest, and to despatch, when necessarily summoned — that — other unreasonable times for the sake of keeping up a good understanding between the governor and them. "But," said they, "should — governors consider this power, — a power of bringing us together at a great expense to the country, merely to show their abilities in contriving new modes, or making — demands upon the people, to obstruct the ends of their meeting, we apprehend it will — valuable purpose." That his speeches and messages — sufficient foundation for them to proceed upon they also admitted to be occasionally true; but then they — of opinion, on the contrary, that when his writs of — — founded on letters — advices, referred — in his said speeches and messages, they had a right to have the original papers laid before them: and they averred this — — been the practice in — province: so that a different conduct at that time could only tend to obstruct the public business before them. — "governors,"

they farther intimate, "might differ in their mode of conducting themselves, according to the different reasons for choosing them or purposes to be served by them, became the people nevertheless be consistent with themselves all times, which could be if they did not make original papers the rule proceeding. The objection drawn from their printing the secretary of state's letter, so often recurred to by the governor, though fully confuted, they would not allow to be of any weight, unless he could show, their printing it had discovered any of his majesty's designs and commands, with respect to the French, more generally known before by his own messages, the public prints, and the speeches of other governors, especially had been communicated without any caution, and had been printed before this objection of his was known. Answerable for every secret of state communicated to him by his superiors, and, they seemed willing to allow; but such as he was enjoined to lay before the assembly, they contended, were to be laid before them, and they were to be responsible for the use made of them afterwards. And as to his sole and only power of judging what papers were fit, and what not, to be laid before the public, they for disputed it, as to except such papers as were necessary for their justification, which, they presumed, were subject to the decisions of their own prudence only, wherein they were assured he might very safely confide."

The trial this dispute may appear, the more apparent becomes that spirit of pertinacious which the proprietaries had let loose, to keep the province in a perpetual broil, till weary of the conflict, they should grow tame by degrees, and last crouch, like the camel, to take up what load, and carry it what length of way, their drivers pleased.

On the 21st of June, when the governor's litigious message thus answered came down, the house sent up their two money-bills, with a message, importing, that the several services, by them enumerated, having almost exhausted their treasury, they had sent up a new bill give the additional of fifteen thousand pounds for those purposes, in which bill, said they (for the of the message shall be given in their own words) "We have carefully followed the act passed by governor Thomas, in 1746, for granting five thousand pounds for the king's use, and the other acts relating to our bills of credit, confirmed by the crown on the twenty-ninth of October, 1748; from which so confirmed, the enacting clauses, so far as they could be made agreeable to present circumstances, have been inserted in this bill, that every objection arising from the royal to colonel Thomas, in 1740, might be obviated by a direct decision of the highest authority. And

as that confirmation of our acts, which we presume will have its due weight with our governor, may be more certainly known to him than appears to have hitherto been, we take the liberty of sending him the original confirmation."

"We have only to entreat the governor would be pleased give this bill all the despatch in his power, our long sitting at this every respect unreasonable, and the presence of many of our members is now absolutely necessary at their homes, for the better security of their harvest, under the present calamitous circumstances."

To understand what here meant by the words calamitous circumstances, it is necessary the reader should be informed, that Pennsylvania having been visited this year with a great and drought, which had obliged the inhabitants in many places to mow their wheat, in order to supply the want of fodder for their cattle, no longer abundant in bread-corn, as it usually does, and very melancholy apprehensions began to be entertained, that the miseries of scarcity would be superadded to those of war.

From the 21st to the 23d, nevertheless, the governor brooded over the two bills, viz. the ten thousand pound bill for exchange, and the fifteen thousand pound bill for the king's use, and then down a message acknowledging, that many of the bills of credit were in a condition; but requiring to be first satisfied, how much of the money formerly sent for exchanging bills, and of which three thousand three hundred and two pounds six shillings and eight pence was at the last settlement remaining in the hands of the trustees, was still remaining, before he passed that bill. He answered the day, that, according to the best computation could be made, the was one thousand three hundred and two pounds six shillings eight pence. Before that answer could reach his hands, his secretary was despatched to the house with such amendments to the others, which the principal bill, as he was, unquestionably, preconceived the assembly would never comply with. And that this is an uncharitable and unreasonable assertion, is manifest from the whole tenor of his conduct, which was demonstrably such would have better become a French governor than an English.

The assembly, however, bestowed a proper time of consideration those amendments, and then acquainted him by message that they adhered to their bill in all parts, accompanied this declaration with a question, Whether he would pass it or not? which he answered first, he would take it into consideration, and finally gave it under his hand, that he adhered to the amendments, without any

reasons, desiring a conference, or having reasons, desiring any other expedient usual on the like occasions.

The ten thousand pounds bill for exchanging torn and defaced money, met with a better fate; for, after some concessions on both sides, it was passed into a law; and this almost the only fruit of a so ably exacted, and introduced with such extraordinary demands.

They then acquainted the governor by message, that they proposed to adjourn to the 10th of September then next ensuing; and the governor signified in reply, that he had no objection thereto.

Notwithstanding which he summoned them again to meet on the 10th of July; and they met accordingly, gave him notice thereof as usual, and required a copy of the writs by which they were summoned. His answer was not returned till the next day, and then what he said was this effect: that he had no business he had for the consideration of the house before then the day preceding, had not the shocking news he had received, prevented his getting it ready time enough; but that the house should hear from him that morning, and also have the copy of the writ as desired.

This shocking news was the strange, unprecedented, ignominious defeat of general Braddock: and what, if possible, is more shocking still, this incident, which, though inconsiderable to the whole, struck so much horror through every part, had no other effect on him, than the miracles of Moses had on the heart of Pharaoh.

If the exposed condition of the province had before furnished him with topics for levies of money and troops, and for placing an unlimited confidence in him their governor, and his first council the proprietaries, he thought it would render his eloquence irresistible; and all hazards resolved to make the most of it.

Fear, though most and enfeeblener of any of the passions, is the strongest dominion over us; and while we are half of ourselves, it is not to be wondered, that we bestow the property of any body else.

With a face, and a voice, and whatever else was suitable for the practice now to be tried, did the governor now address the assembly; having despatched the death of Braddock in less than six lines, and at once to the application in the following: "This unfortunate and unexpected change in our affairs, will deeply affect every one of our majesty's colonies, but none of them in so sensible a manner as this province, which, having no militia, is thereby left exposed to the cruel incursions of the French and their Indians, who delight in shedding human blood, who make

no distinction as to age or sex to those that are armed against them, or such as they can surprise in their peaceful habitations—are alike the objects of their cruelty—slaughtering the tender infant and the frightened mother with equal joy and fierceness. To such enemies, spurred on by the novelty of their tempers, encouraged by their success, and having now an army to fear, are the inhabitants of this province exposed—and by such must we expect to overrun, if we do not immediately prepare for our own defence; we ought we content ourselves with this, but resolve to drive and confine the French to their just limits."

Here the noble example of the eastern governments (New England) in forcing their enemy to keep a due distance from their borders, was recommended and enforced; and then returning to his main point, he again expatiated thus: "Allow me therefore, gentlemen, to recommend to your most serious consideration the present state and condition of your country, the danger to which the lives and properties of all those you have undertaken to represent, stand exposed at this critical and melancholy conjuncture; and to desire that you would not, by any ill-timed parsimony, by reviving any matter, that have been in dispute, or from any other motive, suffer the people to remain any longer unprotected, or the blood of the innocent to be shed by the cruel hands of savages. There are men enough in this province to protect against any force the French can bring, and numbers of them are willing and desirous to defend their country upon the present occasion, but they have neither arms, ammunition, nor discipline, without which it will be impossible to repel an active enemy, whose trade is war. I therefore hope, that you will, without delay, grant such supplies as may enable me not only to secure the people of this province, but by reinforcing and assisting the king's troops, enable them to remove the French from their present encroachments.

"If something very effectual be not done at this time for the safety and security of the province, the enemy, know how to make the best use of a victory, will strengthen themselves in such a manner, that it will be next to impossible for us to dislodge them."

In effect, the assembly chose, for this once, to be blind to the artificial part of his speech, and to discharge their duty in such a manner, as should leave him, even on his own premises, inexcusable for any failure on his side.

On the very next day they granted an aid of fifty thousand pounds; though it is plain by this that they did not grant a good one next following, when they took the means of raising under consideration, the governor, by mes-

sage, apprised them that colonel Dunbar, with the remainder of the king's forces, reached fort Cumberland; and that, as soon as circumstances would admit, he intended to continue his march to Philadelphia; that he these matters before them, that they might fall upon measures, as soon as possible, for the protection of the frontier.

this had the desired effect; for the assembly in their reply most rationally suggested, that colonel Dunbar's might employed on this service; and requested the governor to make use of his instances accordingly. This he could refuse; but the sequel may show how desirous he was of having the province defended by those forces.

The next day, while the house debating on the ways and means, among which one known taxing the proprietary estate in proportion with others, a pompous message down, containing offer the part of the proprietaries, of one thousand acres of land, west of the Alleghany mountain, without purchase-money, and for fifteen years clear of quit-rents, to every colonel who should serve on expedition from that the neighbouring provinces against the the French on the Ohio; seven hundred and fifty to each lieutenant-colonel and major; five hundred to each captain, four hundred to each lieutenant and ensign, and two hundred to every common soldier; and requiring the house to afford some assistance to such as should accept the

To make up weight, a letter of intelligence from an Indian trader lately returned from Canada, whither he had fled to avoid being apprehended for killing a was sent along with this message; and, upon the heels of both, a remonstrance (not a petition) was cou-

ed up, from sundry inhabitants of the city and county of Philadelphia (emigrants from the borough of T it must be presumed) and presented to the assembly, containing a submissive consent, that one hundred thousand pounds a sum as would the present exigency; and signifying the willingness of presenters to contribute their proportion of the or of a larger sum if necessary; not to insist on dry petitions from many of the inhabitants of three townships; and two more from sundry inhabitants of the county of Chester, who made it their prayer to be furnished with arms and ammunition for defence of their houses and families.

The assembly, in the mean time, with a degree of composure and steadiness, which in a higher orbit would be called dignity and magnanimity, delivered their sentiments and purposes in one address to the governor, in the following concise but weighty terms: viz.

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"We have deliberately seriously considered the governor's speech of twenty-fourth instant, together with the letters papers he has been pleased to lay before us, by which we find, that the defeat of the forces, under the immediate command of general Braddock, of colonel Dunbar, to fort Cumberland, attended with very shocking circumstances; nevertheless, it gives us real satisfaction, under this unfortunate and unexpected charge in affairs, that this province has seasonably and cheerfully complied with the demands of the king's forces, and that part of this unhappy defeat can be laid to charge.

"We think it duty on this occasion to be neither parsimonious nor tenacious of such as have been in dispute, and are now under the consideration of our superiors; but, reserving to ourselves all just rights, we have resolved to grant fifty thousand pounds for the king's use, by a tax on all the real and personal estates within this province, in which we shall proceed with all possible despatch; hoping to meet in the governor the same good dispositions he earnestly recommends to us.

"The governor's call of our house this time is agreeable to it impowers us to ourselves yet farther in the service of our country; the like opportunity given to the lower counties, under the governor's administration, doubt not will be acceptable to them, and their contribution to the common cause, before the time to which they stand adjourned."

And now a plain, undefining reader would think, that, the danger of the province being so great as the governor had described it, and the disposition of the assembly so sincere to provide for its security, the issue of the session could not but be as happy as the prospect promising.

The very of this, however, happened to be the case. The assembly found the proprietaries in possession of estate in lands and quit-rents: this estate much endangered any other estate, and to be defended in with the rest; they did not think the immensity of gave it any title to any exemption of any kind, and they found such exemption specified any of their charters.

Proceeding, therefore, by the of reason and equity, as well as policy, they taxed the whole land alike; and subjected the proprietaries, landholders, to a proportional share of all the claims and impositions, which their deputy would have exempted them from as governors in chief, and was so strenuous for imposing on the people alone; and thus one bitter ingredient was *more in olla*, death in pot. The burdens laid by the proprietaries, or by proprietary power the province, could not be too heavy; but they them-

selves would not charge a finger with the [redacted] part [redacted] the weight of them.

On the same day that the bill was sent up, it [redacted] returned with such amendments, as entirely exonerated the whole proprietary estate; and the following message was immediately prepared by the assembly, [redacted] despatched [redacted] the governor, [redacted] wit:

"May it please [redacted] Governor,

"The taxing of the proprietary [redacted] with the [redacted] of [redacted] people [redacted] province, [redacted] their [redacted] security [redacted] time of imminent danger, [redacted] [redacted] [redacted] perfectly equitable [redacted] just, that [redacted] surprised the governor should propose it [redacted] amendment to our bill,* that the proprietary [redacted] be in this instance exempted.

"As the occasion urges, we are extremely desirous to come as soon as possible to a conclusion in the business of this sitting; [redacted] do therefore [redacted] [redacted] governor [redacted] be pleased to acquaint us explicitly, whether he is restricted by the proprietaries from passing [redacted] bill as it stands in that particular, though it were otherwise consistent with his judgment, since it will only waste time to endeavour to convince him of [redacted] reasonableness, if after all it will not obtain his [redacted].

"Or, if it be possible that such exemption of the proprietary [redacted] from [redacted] share in the common expense of securing the whole, [redacted] appear to the governor a thing right in itself, we would then request him to favour us with the [redacted] of his opinion, that we may take them immediately into consideration; for [redacted] this matter is explained, and understood, we think it needless to consider any other proposed alterations."

To this the governor the next day replied.

"Gentlemen,

"In answer [redacted] your message of yesterday, you will give [redacted] [redacted] observe, that in the proprietary [redacted] appointing [redacted] this government, there is a proviso that nothing herein contained shall extend, [redacted] construed to extend, to give [redacted] any power [redacted] do or consent to any [redacted] whereby the estate or property of the proprietaries may be hurt or incumbered; and this proviso being contained in the body of the commission from which I derive the power of acting [redacted] governor, it is not only the highest prohibition to me, but [redacted] law that I may pass contrary to that proviso, I imagine, would be void in itself for want of power in me to give [redacted] being.

"But had I [redacted] been thus prohibited, I should still have thought it my duty, to have excepted the proprietary [redacted] from the [redacted] proposed to be made, for the following reasons.

* [redacted] bill said [redacted] tax on all real and personal throughout the province, the proprietary estate "not excepted." The amendment proposed was in these words, "Delete the word [not] and insert the word [only]." A small, [redacted] significant [redacted].

"1. For that all governors, whether hereditary or otherwise, are, [redacted] the nature of their office, exempt from [redacted] payment of taxes; on the contrary, [redacted] [redacted] generally given [redacted] to support the honour [redacted] dignity of government, [redacted] [redacted] enable them to do the duties of their station.

"2. For that this exemption from [redacted] arising from the [redacted] of government, [redacted] forced by a positive law in this province, which expressly declares, that the proper [redacted] of the proprietaries shall not be liable to [redacted] taxes.

"3. For [redacted] the proprietaries, by their governor, having consented [redacted] a law for voting in the people [redacted] choice of the persons to assess and lay [redacted] in several counties, without reserving to themselves, [redacted] their governor, any negative upon such choice, and this concession being made with [redacted] express provision, that the proprietary estates should not be taxed, [redacted] will [redacted] very unreasonable to empower such persons by a law, without their previous consent, [redacted] their [redacted] discretion.

"4. For that it is contrary to the constant practice and usage in this and all the proprietary governments upon this continent, so far [redacted] I have been informed, [redacted] lay any [redacted] upon [redacted] lands [redacted] of the proprietaries, exercising the government by themselves or their lieutenants.

"For these [redacted] principally I made the amendments, relating [redacted] the proprietary estate, to your bill for giving fifty thousand pounds to the king's use, [redacted] I hope, gentlemen, they will be sufficient to induce you to agree [redacted] those amendments. Were the proprietaries [redacted] upon the spot, I know their love and affection for this country to be such [redacted] they would do any thing in their power for its preservation and safety; but [redacted] they are not here, I have, on their behalf, proposed to give [redacted] west of the Alleghany [redacted] tains, without any purchase-money, and free [redacted] the payment of quit-rents for fifteen years to come, and then [redacted] to exceed the common quit-rent in this province. The particular quantity proposed [redacted] an additional [redacted] encouragement for each officer and soldier, is expressed in a message to you upon that head."

And the [redacted] day but [redacted] the assembly rejoined, "That the intention of [redacted] bill was [redacted] hurt [redacted] incumber (it being [redacted] little in their power [redacted] intention to hurt [redacted] incumber the estates of their constituents, as in the governor's to hurt or incumber the proprietary estate) but [redacted] free it from hurt and incumbrance; if the worst of incumbrances, the neighbourhood of so mischievous [redacted] enemy, who, [redacted] they [redacted] been repeatedly told by the governor, had [redacted] total possession of [redacted] part, and laid claim to [redacted] greater part of the proprietaries' [redacted]."

try; they could not conceive how the giving a part to save the whole, and, in the proprietary's case, to save the whole, but to render it of double or treble value, could properly be hurting or incumbering an estate; that if the argument had any force, it had the same force in behalf of the people; and, consequently, they ought in duty to reject parts of the bill for the same reason; that their parts, happening otherwise, they had laid the tax cheerfully on their estates on those of their constituents.

"That the proposed grant of lands, for the encouragement of military adventurers, of the Alleghany mountains, without any purchase-money, as absolutely irreconcilable with the law of the proprietary province in his, the governor's commission, as his assent to the tax upon their estate could be represented to be; that if their love and affection for their country was such, that if they on the spot, they would do any thing in their power for preservation; and if the governor, presuming on that love and affection, thought himself at liberty to dispense with a positive prohibition, it might be asked, why could he not venture to do the same in one instance for the same reason as in the other! and if the grant of lands would be valid, notwithstanding such prohibition, why would his assent to the bill be the same? that this magnified offer had in reality proposed only to make taxing of the proprietary appear less reasonable; that it was in effect an offer of only good lands not being so much as specified; and as good as the best there, being to be had in Virginia (where quit-rents but two shillings, whereas in Pennsylvania quit-rents four shillings and two pence sterling) without purchase-money, and with the same exemption of quit-rent for fifteen years to come, those encouragements so graciously those adventurers to recover the proprietaries' lands out of the hands of the enemy, was the bottom no better than a proposal to reward them with a part of the lands they were so to recover, at more than double the price demanded in the neighbouring province, without any of the risk they were in the present case to be exposed to.

"That the governor being vested by the royal charter itself with all powers granted thereby, for good and happy government of the province, was in full capacity to pass the law in question, the proprietaries having no authority to restrain his powers; and all such restraints having been already considered as declared as void.

"That they were to tax the proprietary as governor, but fellow-subject, a possessor of an estate in Pennsylvania, an estate that would be more

benefited by a proper application of the tax than any other estate in the province; that the proprietary did govern them, that the province, at large expense, supported a lieutenant that duty for him; that if the proprietary did go them in person, he had a support allowed that account, they should have thought it less liable to tax him as a landholder for the security of his land; they the representatives of the people, also allowed wages for their in assembly; yet the governor, they insinuated, would hardly allow to be a good reason why their therefore be tax free; that it was to suppose the proprietary could, the nature of his office, derive higher pretensions than the king himself; and yet the king's were, by every land-act, impowered at the same out of their rent; and that the king's receivers were obliged, under severe penalties, to allow of such deductions; but that the instance by many, in which proprietors and governors of petty colonies have ed greater powers, privileges, immunities, and prerogatives, than were ever claimed by their royal master, the imperial throne of all his extensive dominions.

"That the positive law of this province by the governor exempting the proprietary estates from taxes, was no other the law raising county and levies, which in the same act appropriated to purposes for which the proprietaries reasonably be charged (as wages to assembly-men, rewards for killing wolves, &c.) a general, constitutional law of the province; that by a positive law, the people's representatives were to dispose of the people's money, and yet it did not extend to all cases in government; that if it had, amendments of another kind might have been expected from the governor; seeing, that, in consideration of the purposes of the grant, they had allowed him a share in the disposition, and that he, by his last amendment, proposed also, to have a share in the disposition of the overplus, if any.

"That they begged leave to ask, whether, if the proprietary estate was to be taxed as proposed, it would be equitable for the owner to have a negative in the choice of assessors, since that would give him half the choice, in lieu, perhaps, of a hundredth part of the tax; that as it was, he had officers, friends, and other dependants in every county, to vote for him, in number equal to the proportionable value of the share of the tax: that if the proprietary shrunk at the injustice being taxed where he had no choice in the assessors, they again asked, with what face of justice he could desire and insist on having half the power of disposing of the money levied, in

and such terms must therefore be offered them — will effectually engage their friendship; the matter cannot now be minced, ~~minced~~ with them nor the other nations. You will therefore please to consider this matter well, and give me your sentiments and counsel in this nice and critical situation of our affairs."

The assembly's answer:—

"May it please the Governor,

"The secretary, by a verbal message from the governor, on the twentieth of December last, acquainted the house, 'that Scaroyady's son-in-law was charged with a message from the Owendasts, to inquire what their brethren the English designed to do in regard to late incroachments of the French; and having heard, since he came to town, that the king of England intended to send over a number of troops to assist in repelling those invaders, he willing, the governor thought proper to return to his nation, and acquaint them with the joyful news; the governor, therefore, desired the opinion of the house, whether it would be most advisable for Scaroyady's son-in-law to return now to the Ohio, or go to Onondago with Scaroyady.' Whereupon the house gave for answer, that it was their opinion that it would be most proper for Scaroyady's son-in-law to return to the Ohio as conveniently he could. It is all part of our house have had in relation to the Owendasts; neither did we know of the least intention of inviting them, or any others; that as they are now come down without our knowledge or request, entirely upon the governor's invitation, it is a surprise to us to find the Indians should have importune him, or that we should be at any loss to know what it is he has to impart to them on this occasion.

"Our conduct towards the Indians in our alliance has been always candid, and free from any subterfuge whatever, that we do not understand what the governor would mean by telling us 'that the matter cannot be minced, neither with us nor the other nations.' And we are likewise at a loss to conceive why they expect great presents from us, who are wholly ignorant of the intention of their coming.

"The governor is pleased to refuse his assistance to our which provided for Indian and other expenses, and as our treasury is exhausted by the very heavy charges for the king's service, these Indians are come among us at a very unfortunate time, when it is not in our power to supply them in the manner they are inclined to do; however we will do that can be reasonably expected from us, and must leave the balance to be supplied by the proprietaries, whose interest is at least as much concerned as ours in engaging the friendship of the Indians at this time."

The governor's rejoinder:—

"Gentlemen,

"If my message gave you room to think that the Owendasts came here on a particular invitation of mine, at this time, I have led you into a mistake. They came out from their country, as they informed me, on the plan set forth in the minutes of council of the twentieth and twenty-fourth of December last, which were laid before you.

"The other Indians, at their request, accompanied them hither, as they were strangers; and Scaroyady says, he has particular business to transact with the government. I have, in the name of the province, given thanks to the Owendasts for their kind visit, and to those of the Six Nations that were with our army in the late action; assured them of the affections of the English; recommended to them to continue firm in their attachment to us; given them some presents as a token of our regard.

"As the treasury is exhausted, I can only say, that I will readily pass a bill for striking any sum, in paper-money, the present emergency may require, provided funds are found for sinking the same in five years.

"The secretary will communicate to you what was said to the Indians yesterday, and I shall lay before you what may further pass between them and earnestly recommend to you to enable me to send those people away perfectly satisfied."

"In this interval also, the governor, in another written message, did his utmost to refute the arguments urged by the assembly, to justify their claim to the proprietary estate; but as the paper is long, and the assembly's answer is much longer; as the dispute was again and again revived, and a thousand ways diversified; as the data already before us afford sufficient grounds for a fair decision; and as it would require the plegm of a German to wade through the minutiae of it, all these pieces may be collected in an appendix, for the sake of these few words of precision, that they may be satisfied unless they can the result of a controversy together.

The assembly, however, on the very day that they received the governor's paper, prepared him to expect a full and as they hoped, a satisfactory answer; and in order to the public business of the greatest importance might not any longer be delayed by such disputes, took leave to acquaint him, "That the bill they had up to him for money, granting fifty thousand pounds to the king's use, which they saw no reason to alter; that they, therefore, adhered to their bill, and desired the governor would be pleased to give his final answer, whether he would pass it or not, as it then stood!"

And upon the next, the governor signified in writing, "That having amended bill raising fifty thousand pounds, and not being yet satisfied that it was in his power or consistent with his trust, to pass it without amendments, whatever might be when he should hear what they proposed him upon head, thought it necessary in answer to their message of the day before them, that he did adhere to to bill so by him made."

This message was also accompanied by another, in which the governor specifies, "That he had received a letter from colonel Dunbar in answer to the proposition he had made to him [at the instance of the assembly, should have been acknowledged] for posting part of his troops on the western frontier, signifying, that he was willing to employ them in the best manner he could, for the honour of his master and the service of the public, and enclosing the opinion of a council of war, by which he, the governor, was desired to give them a meeting at Shippensburg, where they would wait till he could join them; and that he should readily have gone thither for that purpose, had he not received another letter from governor Shirley, (in to of his, requesting orders for employing the remainder of the two English regiments in protecting the frontiers of that and the neighbouring provinces) in which said, he thought it for his majesty's service to employ those troops another way, as those provinces were populous enough to protect themselves; and therefore sent orders to colonel Dunbar, under cover to him, to march his troops to that city; which he had [already] forwarded to him: and that as the march of these troops would leave the western frontier exposed to the French and Indians, he thought it his duty to communicate those matters to them, that they might, as soon as possible, make provision for security of back inhabitants, and for the subsistence of the troops during their march through the province, which might prevent great mischief to the people inhabiting near the road Shippensburg to Philadelphia."

That the march of our own troops is here discoursed of in such language as renders it doubtful for moment, whether he is not speaking of enemy. Governor Shirley's thoughts are immediately received as laws; governor Morris has not a thought to suggest contrary; is for the king's service to leave a province, actually invaded, as the last of these governors had over and over again asserted to the assembly, exposed to vages of enemy; and though provision had been at first for having four regiments to carry on the in provinces, these provinces were now all at once supposed to be in a condition to cover them-

selves, though some of them had not yet armed a man, or beat a drum.

Out of all which, a jumble of encounter each other, and such a variety doubts and suspicions arises, that one help wondering that the assembly call for these several letters, and evidence of their own eyes, and their own understandings, form such a remonstrance, as would have displayed whole etc of things in its proper colours.

In this instance, therefore, it is not irrationally supposed, that their sagacity failed them; that was no sooner discovered, than governor came upon them with another message importing, "That his secretary would lay before them the copies of sundry petitions which had been presented from several parts of the province, representing their naked and defenceless condition, and praying to be enabled to defend themselves, they were sensible in power to comply with; that he would also lay before them a letter from one John Harris, giving an account of a large party of Indians actually set out from the French fort with a design to fall upon and destroy the inhabitants of this and the neighbouring provinces; that they had this piece of intelligence as he had received it; that they would form their own judgments upon it; that for his part he thought it probable; and that therefore he recommended it to them to take immediate thought about it, the consequence would be very terrible to the inhabitants, if the account should prove true, and could them so injury to be upon their guard if it should prove false."

This dated the 15th—the 16th he farther gave them to understand, "That he found, by an of a letter from governor Lawrence, of Nova Scotia, to lieutenant-governor Phipps, of New England, by governor De Lancy, of New York, to him, that the French at Louisburg such dis of provisions, that a supply could prevented, they might be reduced a necessity of giving it up us; and that, therefore, he recommended them to think of some proper law, their being supplied from Pennsylvania might be effectually prevented."

And the again notified, "That he received letters by express go Shirley, [which however he did communicate] acquainting him, had wrote to colonel Dunbar, it appeared clear to him (Shirley) as there would four months of good weather before the winter set in, that with the number of forces the colonel then had, and the assistance he might have from Pennsylvania, Maryland, and Virginia, he might yet have it in his power, to retrieve the loss sustained in the late defeat, by pro-

coeding to fort Du Quenne, and had sent him orders for that purpose; and that in addition to this, he had said to him, that it would depend on those several provinces to assist colonel Dunbar with reinforcements, provisions, ammunition, artillery, ordnance stores, carriages, horses, and all other things necessary for his march, &c. and that he had wrote the same to governor Dinwiddie and governor Sharpe, whose assistance, with that of Pennsylvania, he entirely relied upon in that extraordinary crisis; but he must therefore recommend it to them, to enable him to do the several things he expected of them, to take the matter into immediate consideration, and give him their answer thereto, which he might in forward colonel Dunbar, and the said governors of Maryland and Virginia, whose assistance would, in a great measure, depend on what he should be enabled to do."

Now general Braddock himself, in the course of his own conduct, which he has lately laid before the public, says, let, that colonel Dunbar did not receive any orders whatever from him till about the middle of August, which time he advanced far in his march Philadelphia; and 2dly, that the orders he then sent him, were to march his troops to Albany, there to be ready to either in the expedition against Niagara or Crown-point as his majesty's service should require, or at least cover the country in case major-general Johnson should be attacked by the French, &c. nor does he mention one word of the assistance expected or required of the said provinces.

The general, nevertheless, might possibly have such orders subsequent.

The assembly did not, however, start any scruple on this head; but, as before, took all upon content; and behaved in every respect, as if they were altogether as solicitous to tax themselves, as their proprietaries.

To render this undeniable, an instance of a very singular kind is now to be brought forward. Certain gentlemen of Philadelphia, not of the assembly, to the number of twenty, subscribed in various proportions, the sum of five hundred and thirty pounds, ten shillings; and made a tender of it to the house with the following proposal, to wit:

"We the subscribers observe, with great concern, that the governor and assembly differ in opinion, in respect to the taxing the proprietaries' estate; and lest by such difference in opinion the bill for raising fifty thousand pounds for his majesty's service should not take effect:

"And as the assembly, in their message to the governor, seem to be of opinion, that were the proprietaries' lands to be taxed, the sum would not exceed five hundred pounds:—"

"We, rather than the proprietaries, check should be given to his majesty's service at this time of imminent danger, by a sum so very trifling, do hereby promise to engage to pay five hundred pounds, money of Pennsylvania, into the public stock, for the king's use, in lieu of what the proprietaries would have paid their part of the fifty thousand pounds, were their lands to be taxed.

"And as we declare the absence of the honourable the proprietaries to be no motive for making this proposal, being well assured, that were they present it would have been altogether unnecessary; and we doubt not but they will honourably acquit every subscriber of this expense."

The house, taking this into consideration, resolved, that such a proposal to this house was improper, and that the house was destitute of the necessary information to assess any estate duly, and neither can nor ought to assess the proprietaries' estate at the sum proposed, or at any other sum whatever; and as, in case the subscribers should neglect or refuse to pay the sum subscribed, it would not be in the power of this house, not being a body incorporated, to sue them for the same. But as the house presumes that the said proposal may have arose from the subscribers' judgment of the equity of taxing the proprietaries' estate equally with all others in this province, for the public safety, ordered, that the said proposal be sent up to the governor as a further security to him, in case he should give his assent to the bill for raising fifty thousand pounds for the king's use, &c.

And having on the 16th, prepared a suitable message, sent it up together with their bill, to the governor, under a strong expression of hope, that, with this further security he would cheerfully give his assent to it.

At the same time, also, in a separate message, they further apprized him, that they had taken his message concerning the late Shirley's orders into consideration; and that it was their opinion, giving assent to their bill, which they earnestly requested of him, would enable him to do any thing which could be reasonably expected from them."

And that he might not be any insidious purpose by his message concerning Louisburg, they sent him the following answer, in which they once corrected the state of the fact, by inserting the very words of governor Lawrence's letter, and left him to answer for his deviation.

"May it please the Governor,

"We have considered the governor's message of the 16th instant, with the extract from

words of the assembly by these friends of the proprietary; and it appears by an act afterwards passed, that five thousand pounds, and not five hundred pounds, was looked upon and accepted as an equivalent for the prepayment of a hundred thousand tax.

* This however was a forced construction put on the

governor Lawrence's letter to governor Phipps, in which it is observed, 'that if the excellent laws prohibiting the exportation of provisions from Louisbourg continue in force for two months longer, there is a probability that the governor of that place will be obliged to present the keys of the garrison to Mr. Boscaawen.' And our governor is pleased to recommend it to the consideration of some proper law that may effectually prevent their being supplied from this province; but the act passed this house, and received the governor's assent, at the last sitting, intitled, 'an act to continue an act, intituled, an act to prevent the exportation of provisions, naval or warlike stores, from this province to Cape Breton, or to any other dominions of the French king, or places now present in possession of any of our subjects,' by which the act continued will be in force at least ten months to come, and has been, as far as we know, effectual for the purposes intended; and the governor has not pointed out to us any defect in that act, nor any occurred to us, we cannot at present think what law can be made more effectually to prevent that place being supplied with provisions, &c. from this province."

And now the period comes, when all capable of conviction, were to be convinced, that, though the governor had laboured hard to establish a belief, that the supplying disposition of the assembly was the only obstacle to the current of public business, the contrary was the matter of fact; and that having observed obstinacy on his side never failed to produce some concession on theirs, he had come to a resolution, to proceed in the same manner of exaction, nothing required of him by his instructions was left unperformed: that is to say, till the assembly had nothing left to part with.

The shadow of a royal instruction, so long and so often played before their eyes, was now out of the question; the governor says the province is actually invaded; that a victorious enemy is on the point of ravaging it with fire and sword; the king's troops, after having been so many ways gratified and assisted, are recalled; they are told they are to provide for their own defence; they offer fifty thousand pounds to be laid out for that purpose; the proprietary estate becomes liable to a demand, computed by his friends at about five hundred pounds, that five hundred pounds, is offered on the behalf of the proprietaries, by a few private individuals, as an expedient to remove that only difficulty out of the way: and the governor refuses it. So that, if there was any truth in the governor's repeated assertions, the safety of the province, the interest of the public, and the honour of the British crown, were to be alike exposed and endangered, together with the proprietary estate, so

impertinently and improvidently put in scale against all the rest.

To say all at once, his answer to the last proposition, verbally delivered to the house by his secretary, was in these words, viz.

"Sir,—The governor having by message of the 14th inst. informed you, that he did think it consistent with his power, or trust, to pass an act raising fifty thousand pounds, without the amendments he had made to it, and that he adhered to those amendments, is surprised at you of this day, to which he can only say, that he thinks it his duty to adhere still to the amendments he made to that bill."

On the same day, also, by another message he put in mind of his former requisitions concerning a militia; and demanded a plain and categorical answer whether they would establish one, "That his majesty and his ministers might be informed, whether, at this time of danger, the province of Pennsylvania is to be put into a posture of defence or not?"

This convinced the house, that the expedition was at an end; and that all the governor aimed at was to bewilder them if possible in a maze of controversy. To discharge themselves, therefore, of every branch of duty, as far as they were permitted to, with any consistency in themselves, they regard the fundamentals of their constitution, they first took into consideration the several petitions of the frontier towns, for arms &c., and resolved, that a sum not exceeding one thousand pounds, if so much remained in the treasury at the disposition of the house by the laws in force, should be paid into the hands of a committee of the house, then named, to be by them disposed of, with the sanction of the governor for the time being, as should appear necessary.

Proceeding then to the governor's verbal message concerning their money-bill; they agreed to return an answer to this effect, viz. "that he having in his former message signified, that he was not yet satisfied, &c. whatever might be heard what they had farther to say, which argues a suspension of his determination, and they having since him a long message containing the reasons of their procedure, they could not but be surprised at his surprise, more especially as he had not even then returned their bill; that as to his proposal for striking any sum in paper-money the present exigency might require, provided funds were established for sinking the same in five years, they had no funds equal to so great a sum without the assistance of an equitable tax, to which the governor would always have his objections in favour of the proprietary estate; that as the proposal might lead them back into those disputes, which, by the form of this bill, agree-

able to the governor's advice in his speech at the opening of the session, they had studied to avoid, they should be farther surprised to receive it from him, could they find the least reason to think he was sincerely desirous of having any thing done for the defence of the province; and that being now convinced, no farther benefit could arise from their longer sitting, and being to meet of course in a few weeks to [redacted] the accounts of the year, they took leave to acquaint him of their purpose to adjourn to the 15th of September ensuing, in case he had no objection to that time."

Lastly, by [redacted] members that were appointed to carry up this message to the governor, they [redacted] sent another concerning a militia, in which having enumerated [redacted] several [redacted] in relation [redacted] defence and safety of the province, they waive the point by saying, "That the elections throughout the province being near [redacted] hand, they chose to refer that point [redacted] a future assembly, and then proceed [redacted] follows:—But [redacted] find, by the governor's result [redacted] our [redacted] for granting fifty thousand pounds [redacted] the king's use, he cannot think it consistent with the trust reposed in him by the proprietaries to pass that bill, [redacted] find by experience that it can answer [redacted] no good purpose to waste our time in preparing bills for his assent, in which, for the common security and defence of the province, we apprehend it would [redacted] a high breach of the [redacted] reposed in us, to exclude the proprietaries' [redacted] from [redacted] any part of the burden, and if not excluded, as the governor asserts, must [redacted] last be rejected by him for want of sufficient powers in [redacted] commission; and therefore (had [redacted] no other objections) we hope the governor will judge [redacted] reasonable, after so many repeated refusals of the bills [redacted] have [redacted] to [redacted] granting large [redacted] of money for the king's use, that we now wait the determination of [redacted] superiors, what powers he has, or ought to have, as our governor, under the royal [redacted] provincial charters: and what exclusive rights our proprietaries may be justly [redacted] in the laying and levying of [redacted] for the common security and defence of their estates, with all the other [redacted] state within [redacted] province."

In [redacted] [redacted] of [redacted] no far as related to the time of adjournment, (with which he [redacted] verbally acquainted by [redacted] messengers) the governor was pleased to say, "he had no objection to that time more than any other; but [redacted] [redacted] found [redacted] perusal of the written messages then delivered to him] that the house had [redacted] given him [redacted] satisfactory answer, to his messages relating to a militia, he should call them again immediately."

To the time of their own adjournment, they had nevertheless, the grace to be indulged with a recess. And on the third day of

their sitting, they preferred a request to the governor, "that, if he had any business of importance to lay before them, particularly, if any application had been made to him for a farther supply of provisions, for the use of the king's forces then gone towards Crown-point, he would be pleased to lay it before them soon, as their year was near expired, and the time of [redacted] continuance together consequent [redacted] short."

The answer they received was verbal, by his honour's secretary, importing, "that the government of [redacted]achusetts-bay had ordered two thousand eight hundred men to be immediately raised, in addition to the one thousand [redacted] hundred before raised for the reduction of Crown-point; and that the governor had the day before received a letter from governor Phipps, desiring, at the instance of the council and assembly there, [redacted] supply of provisions to be sent to Albany." And, as if this was not enough to ask of them, a supplemental paragraph was grafted upon it as follows: "the governor has also been informed, that the government of Connecticut have raised [redacted] hundred men, and Rhode-Island one hundred and fifty, in addition to the forces sent by those governments against Crown-point, who will also [redacted] in need of a supply of provisions; he therefore recommends these matters to your consideration."

Two articles, out of governor Shirley's state of his [redacted] conduct, [redacted] come in not improperly here; viz. "Upon Mr. Shirley's [redacted] [redacted] N. York (July 4,) he found a full stop put [redacted] the preparations for the expedition against Crown-point, with respect to the articles of artillery and military stores, which the governments of Massachusetts-bay and New York had agreed to furnish between them, depending that the colonies of Connecticut, New-Hampshire, [redacted] Rhode-Island, would pay their proportions of the expense: but that [redacted] being done, [redacted] government of New York declined parting with the stores, without actual payment or security given. After having removed this obstacle [redacted] the expedition's proceeding, by putting into the hands of the government of New York, a sufficient quantity of the Pennsylvania provisions, [redacted] a security [redacted] reimbursing them on account of the before-mentioned articles, and advanced about one thousand pounds sterling, of his own money, towards the expense of transporting the artillery, and ordnance-stores, in confidence of being reimbursed by the New England colonies, he embarked for Albany."

The reader will make his own remarks: at least he will infer from what passed in the assembly of Pennsylvania before, in relation to orders said to have been received from [redacted] demands, [redacted] by general Shirley, that the said assembly would now have been inexorable, if they had not called upon their go-

vernor, ■■■ governor Phipp's letter and the other informations referred to upon this occasion; which they did by express message; and ■■■ having been ■■■ by ■■■ ■■■ to that call, that he had orders from the secretary of state not to lay before the house any papers but such as he pleased, they should apply ■■■ him for a sight of such orders.

They did so, and were again refused; ■■■ signifying that such orders being intended ■■■ him ■■■ government, he thought ■■■ improper to communicate them; ■■■ the name of the secretary of state, vouching, as he ■■■ ■■■ done before, that messages from him ■■■ a sufficient foundation for them to proceed upon; but withal recurring to what he had also offered in his former message, namely, to communicate to their speaker, or a few of the house, such parts of the information he had received ■■■ ■■■ ■■■ ■■■ majesty's services required.

But this not proving satisfactory to the house, all proceedings on this head were for some days ■■■ a stand; and the interval was filled with a continuation of the animated controversy, which in the preceding session had so highly exasperated the two branches of the legislature against each other, and which ■■■ had been either revived, or ceased, ■■■ governor and his employers had not preferred their own private views, to all ■■■ ■■■ equitable obligations of government.

When the assembly had ■■■ nine days, and now remained in a sort of suspense, not choosing to inflame on one hand, and willing to hope the governor would find reasons to abate of his unreasonable stiffness on the other; came down a long message by way of answer to the assembly's paper of August 19; and, sufficiently exasperated thereby, that body, ■■■ the point of dissolution, resolved ■■■ acquit themselves with as much spirit as if they had been immortal.

To the appendix ■■■ reader ■■■ be again referred for ■■■ pieces; they cannot, they ought not to be suppressed; they are too long to be here inserted entire, and ■■■ abridge them, at least ■■■ of the assembly, would ■■■ main one of the most lively pieces that liberty ■■■ inspired ■■■ controversy produced. See Appendix A.

Such a reference ■■■ to the subject ■■■ of both as will just serve to keep us a sort of historical connexion, is all the use to be made of them in this place.

The assembly had (very truly) charged the governor ■■■ contriving all possible methods of expense ■■■ exhaust their ■■■ ■■■ their affairs; and ■■■ given in proof the ■■■ ■■■ made ■■■ them for cutting the road for the use of the army; an ■■■ price which they tell him they ■■■ undertaken ■■■ instance, on a computation of its costing only eight hundred pounds. The governor in

his reply said such a sum might have been mentioned as what it would cost in some men's private opinion; but not upon an ■■■ of the commissioners, nor what had been as such sent to him. Adding, "that though they had numbered the making the ■■■ among their meritorious acts, they had in effect done it out of fear of having proper representations made of their conduct at home, and of an armed force being used to oblige the inhabitants to do this necessary work; that he had persuaded the general to compound for one road instead of two, to contract even that to two thirds of the breadth, and not to carry it so far by many miles as directed by the quarter-master-general; by which great savings were made to the province, and thanks instead of complaints were due to him, and rewards to the commissioners who had served ■■■ province in so hazardous ■■■ task so well; that he had never made such a demand as five thousand pounds, nor could it have been ■■■ by any one, because the accounts were not come in; and that now they were come in, the charge did not amount to three thousand pounds, which was not extravagant, considering the distance and expedition required in the work."

The assembly in their answer could not ■■■ full in their ■■■ justification, and, ■■■ sequently, ■■■ refuting the governor, ■■■ they might have been, because the necessary documents ■■■ happened ■■■ that time to be mislaid. But when those documents were recovered, they did themselves ample justice, by reprinting the most material in an appendix to their minutes.

And among them ■■■ a letter from the said commissioners to the governor, which was communicated, together with one of the governor's own, (■■■ the committee of assembly, at that extraordinary crisis, appointed to act on behalf of the whole, and other members then called in to their assistance) by his secretary; in which ■■■ following express clause: "the expense of making the road thirty feet wide, and ■■■ principal pinches twenty, will make an expense of about eight hundred pounds." ■■■ letter ■■■ dated April 10th; and the committee having, in the name of the house, undertaken ■■■ defray the expense of both roads, the work went on accordingly. In another letter from the same commissioners, dated May 3d, it is said, "both roads will leave ■■■ of one thousand five hundred pounds, ■■■ it ■■■ impossible to tell what unexpected ■■■ will arise," &c. the house, ■■■ sitting, resolved to persevere notwithstanding, and notwithstanding ■■■ loss of their bill, which ■■■ compliance more difficult. Another estimate, dated ■■■ days after this, signified, "that ■■■ expense of opening both roads would ■■■ under two thousand pounds." Thus three estimates

had been delivered in, each exceeding [redacted] other; and after all this, when one road had been dropt, and the other reduced in the manner alleged by the governor, the said commissioners did actually require five thousand pounds to be sent to them, in addition to what [redacted] been paid to them already, which in money and provisions was supposed to be near one thousand pounds. [redacted] committee of accounts had sat upon this requisition, had pronounced it to be extravagant, and had given it [redacted] their opinion, August 8th, 1755, "that in order to prevent imposition on the public, the said commissioners ought forthwith to attend the said [redacted] with their accounts fairly stated, with proper vouchers for the same." From [redacted] which premises, [redacted] house [redacted] surely reason [redacted] as they did, "whether they had not good reason to be surprised at this, and to suspect some extravagance in the management?" [redacted] they [redacted] farther still; they cited the original letter from the governor's [redacted] commissioners [redacted] him, and by [redacted] communicated to the house, August 8th, [redacted] which the five thousand pounds [redacted] specified, together with an intimation, that the people being inuch [redacted] of money, the [redacted] could not be sent too soon. And they conclude this section with the following shrewd remark: "The governor's judgment of our motives to engage in this work of opening the roads, seems to us a very uncharitable one, but we hope [redacted] find more equitable judgment elsewhere. We are obliged to him, however, for owning that [redacted] did engage in it at all. For [redacted] he is pleased to lay it down as a [redacted] un that we are very wicked people; he has shown in other instances, when [redacted] have done any good, that he thinks it no more injurious to us to deny the facts, than now to deny the goodness of our motives. [redacted] would, however, think himself ill used, [redacted] any part of his zeal [redacted] that affair [redacted] ascribed [redacted] the menaces directed to him; or to a view of accommodating by the new road the lands of the proprietaries' new purchase, and by [redacted] increasing the value of their [redacted] at our expense."

Again: [redacted] governor was pleased to express himself in these extraordinary terms—"You have often mentioned [redacted] you have done to promote the success of his majesty's arms under general Braddock, and for the defence of the province, and say, you have letters from the late general, thanking you for your [redacted] vice; the truth of this I [redacted] beg leave to question, as the late general was too honest to say [redacted] thing to you, and another to the king's ministers. He might acknowledge the services of particular men, but how you can take those to yourselves as an assembly, when you [redacted] no hand in what was done, I am at a loss to know. I think it will not be doubted, but that had you in time opened the proper roads, raised men, and provided carriages

necessary provisions for the troops, as this was the only province able in the general's situation, to furnish him with them, we might now have been in peaceable possession of fort Du Queme."

To which astonishing, [redacted] groundless charge, the assembly, in the following full and effectual [redacted], replied: "We own that we have often mentioned this; but we have been forced to [redacted] by the governor's asserting, as often, in his messages, contrary to known fact, that we had done nothing, and would do nothing of [redacted] kind. But it seems we [redacted] to ourselves [redacted] services of particular men, in which the governor says, we had no hand, and adds, 'That had we in time opened the proper roads, raised men, and provided carriages, and necessary provisions for the troops, [redacted] might now have been in peaceable possession of fort Du Queme.' We beg leave to ask [redacted] governor, [redacted] body no share in what is done by its members? [redacted] house no hand in what is done by its committees? had it no [redacted] in what is done by virtue of its own resolves and orders? did we not, many weeks before the troops arrived, vote five thousand pounds for purchasing fresh victuals, and other necessities for their use? did we not [redacted] money on our own credit to purchase those provisions when the governor [redacted] rejected our bill? [redacted] the governor deny this, when he himself once charged it upon us as a crime? were [redacted] provisions actually purchased by our committee, the full quantity required by the commissary, and carried by land to Virginia [redacted] our expense, even before they were wanted? did the army ever want provisions, [redacted] they had abandoned or destroyed them? [redacted] there not even [redacted] some scores of tons of it lying at fort Cumberland and Conococheig? did the governor [redacted] mention the opening of roads to us before the 18th of March, though the requisition was made to him by the quarter-master-general in January? did [redacted] not in [redacted] few days after send him up a bill to provide for the expense, which he refused? [redacted] not the governor proceed nevertheless to appoint commissioners, and [redacted] labourers for opening the road, whom [redacted] afterwards agreed to pay out of the money we happened to have [redacted] power? did [redacted] work ever stop a moment through any default of ours? [redacted] road [redacted] intended for the march of the troops to the Ohio? was it not merely to open a communication with [redacted] province, [redacted] the more convenient supplying them, with provisions when [redacted] should be arrived there? [redacted] they wait in the least for this road? had they [redacted] many men as they wanted, and [redacted] from [redacted] province? were they not more [redacted] than the enemy they went to oppose, even after the general had left [redacted] half his army fifty miles behind him? were not all the carriages they demanded, being one

secure it against ■ weather, to which great quantities of it lay exposed in Maryland after the delivery of it there.

What spirit this gentleman (the governor) was possessed with, had been a question. ■ assembly would not allow him to have the spirit of government; he himself maintained, that if he ■ enough of the spirit of submission, (terms generally held irreconcilable) his government would have been more agreeable to the province. But now it can be a question no longer.

The last period of ■ governor's message was ■ very quintessence of invective. ■ fine, gentlemen, said he, I must remind you, that in a former message you ■ you ■ a plain people that had ■ joy in disputation. But let your minutes ■ examined for fifteen years past, not to go higher, and in them will ■ found ■ artifice, more time ■ money spent in frivolous controversies, ■ unparalleled abuses of you ■ governors, and more undutifulness to the crown, than ■ the rest of ■ majesty's colonies put together. And while you continue in such a temper of mind, I have very little hopes of good, either for his majesty's service, or for the defence ■ protection of this unfortunate country."

And in the reply of the assembly his own artillery was turned upon ■ follows: "The minutes are printed, and in many hands, who may judge, ■ examining them, whether any abuses of governors and undutifulness ■ the crown are to be found in them. Controversies indeed there ■ too many; but as our ■ yearly changing, while our proprietaries, during that term, have remained the ■ and have probably given their governors the same instructions, ■ must leave others to guess from what root it is most likely that those controversies ■ continually spring. As to frivolous controversies, we never had so many of them as since our present governor's administration, and ■ raised by himself; and ■ may ■ say, that during that ■ year, ■ yet expired, there have been ■ 'unparalleled abuses' of this people, ■ their representatives in assembly, than in all the years put together, since the settlement of the province.

"We are now to take our leave of the governor; and indeed, since he hopes no good from us, nor we from him, 'tis time we should be parted. If ■ constituents disapprove ■ conduct, a few days will give them an opportunity of changing us by a new election; ■ could the governor ■ ■ easily changed, Pennsylvania would, we apprehend, deserve much less the character he gives it, of an unfortunate country."

That, however, they might ■ continue ■ on ■ ■ continue ■ deserve the ■ confidence, they proceeded ■ all they could to the advance-

ment of the service; not only without the concurrence of the governor, but in spite of his endeavours to render them odious by all the means of prevention his wit, his malice, or his power could help him to. In what manner, the following unanimous resolutions will specify.

"That when application is made to this house by the governor, for something to be done at the request of another government, the letters and papers that are to be the foundation of our proceedings on such application, ought to be, as they have been by all preceding governors, laid before the house for their consideration.

"That a sight afforded to the speaker, or a few of the members, of papers remaining in the governor's hands, cannot be so satisfactory to the rest of ■ house, nor even ■ speaker, and such members, as if those papers were laid before the house were they might receive several distinct readings, and be subject to repeated inspection and discussion till they were thoroughly understood; and all danger of mistakes and misconceptions through defect of attention, or of memory, in one or a few persons, effectually prevented.

"That great inaccuracies and want of exactness have been frequently observed by the house in the governor's manner of stating matters, laid before them in his messages; and therefore they cannot think such messages, without the papers therein referred to, ■ sufficient foundation for the house to proceed upon, in ■ of moment, or that it would be prudent or safe so to do, either for themselves or their constituents.

"That though the governor may possibly have obtained orders not ■ lay the secretary of state's letters, in ■ cases, before the house, they humbly conceive ■ hope that letters from the neighbouring governments, in such cases as the present, cannot be included in those orders.

"That when an immediate assistance to neighbouring colonies ■ required of us; to interrupt ■ prevent ■ deliberations, by ■ firing ■ ■ sight of the request, ■ a proceeding extremely improper ■ unreasonable.

"But a member of ■ house producing a ■ to himself from the honourable Thomas Hutchinson, Esq. a person of great distinction ■ weight in the government ■ Massachusetts-bay, and a member of the council of that province, mentioning the application to this government for provisions, and the necessity of an immediate supply; and it appearing by the resolution of the council of war, held ■ the carrying place, on the twenty-fourth past (an abstract of which is communicated ■ the speaker, by the honourable Thomas Pownall, Esq. lieutenant-governor of ■ Jerseys) ■ the army will be in want of blankets and other clothing, suitable to ■ approaching season:

and this house being willing to afford what may be their power, under their present unhappy circumstances of an exhausted treasury, and a total refusal by the governor of their bills for raising money, resolved,

"That a voluntary subscription of any sum or sums, not exceeding ten thousand pounds, which paid by any persons into hands of Norria, Evan Morgan, Joseph Fox, John Mifflin, Reese Meredith, and Samuel of the city of Philadelphia, gentlemen, within two date, towards the furnishing of provisions and blankets, other clothing, the troops now Crown-point, the frontiers of New York, will of service to the crown, and accepta public, and the subscribers ought thankfully reimbursed (with interest) by future assemblies, whom it accordingly by earnestly recommended."

And may be called the finishing measure of this every way public-spirited assembly; the governor did not choose to be in the way to receive their reply; and so the session and the controversy for time ended together.

Into the hands of what number of readers, or readers of what capacities, dispositions, or principles, this treatise fall, is out of calculation the and decision the last; but whatever the number may be, or however they may happen to be principled, disposed, or endowed, the majority will by this time, probably, exclaim, enough of this governor! or, enough of author!

whichever should happen be the case, pardon is asked for the necessity of proceeding a few stages farther; and patience ought to be required, to induce reader hold out to the end of so disagreeable a journey.

Though foiled, disgraced, silenced this anti-Penn, this undertaker subvert building Penn had raised, was far from quitting the lists.

On contrary, he lay in wait with impatience for a verification of his own predictions concerning danger of frontier, and miseries inhabitants to sustain when enemy in them.

such actually become when the fugitives should on sides, driven either by the enemy or their own fears, or both, capital; when every week furnish some tragedy; rumour so practised upon credulity, every single fact should by the help of and re-echoes be multiplied into twenty; when panic general, and very of the herd, their incapacity to operate for themselves, should render them any insupportable what-

soever, then, he thought, and altogether unjustly, their passions might be of service to him, though their reason could not; the event will show, that, provided he might attain his ends, could very different about the means.

Factions he had found means to form, both in the city and the several counties; and tools and implements of all kinds, from the officious stage down to the prostitute writer, the whispering incendiary, and avowed desperado, he was surrounded with. The press he had made an outrageous use of; a cry he had raised; and a miniature the whole game of faction was here played by him with as little reserve, though not with as much success, as it in greater elsewhere.

The current of elections, however, still continued to set against him: those who had the most interest stake remained firm to the interest of their country; nothing recommended but the of and clamour, to compel them be subservient to his indirect purposes, if possible, whom he not deprive of their country's confidence favour.

This was the true state of Pennsylvania, when the assembly, composed chiefly of the members, took their

On the 14th of October the house met in course, according to their constitution; but did proceed to material, or at least extraordinary, business. The governor was not yet sure of his crisis; and therefore, chose to feel pulse in manner following:—His secretary being in conversation with the speaker of the assembly (the same who had served in that office many years past,) took occasion to communicate two letters to him concerning Indian affairs; and the speaker, asking, whether they not to be laid before the house, the secretary replied, he had no such orders. The letters were of course returned; and the speaker made the house acquainted with incident; adding, "that be thought the said letters contained matters of great importance to the welfare of province; but as he could not presume to charge his memory with the particulars, so lay them before the house for foundation of conduct, could only mention the fact, recommend it to consideration of the house." The hereupon deputed two members to inform the governor, "that having gone through usual business first sitting of assembly, they inclined to adjourn, unless he had any thing to lay before them, particularly in regard to Indian affairs, that might require their longer stay." And the members were farther to acquaint him with the time of their adjournment, case the governor should in reply say, he nothing communicate. In concert side, produced concert on other. The governor replied, as had

been foreseen, "that if he had had any business to lay before the house he should have done it before this time." And being then acquainted with the proposed time of adjournment, which was till the first of December, he said—*It was very well.*

The house, therefore, having first resolved to continue the supplies granted by the former assembly to the Indians on their frontier, adjourned accordingly, having sat but four days.

Fifteen days of this adjournment were also suffered to elapse, as if all danger and apprehension were at an end. But then the governor being armed on all points, summoned them all to him, with all the circumstances of alarm and terror his imagination could furnish.

Intelligence (probably the same intelligence contained in the two letters communicated by his secretary to the speaker) that a party of French and Indians, to the number of fifteen hundred, as he was informed, had passed the Alleghany hills, and having penetrated as far as the Kittochting hills, within about eighty miles of Philadelphia, were encamped on the Susquehanna, the business he had to impart to them: and from his manner of imparting it, he seemed more delighted than shocked with the recital. "This invasion," said he, "was what we had the greatest reason to believe would be the consequence of general Braddock's defeat, and the ruin of the regular troops." Why they retreat then from the actual seat of war? was the wild country the Ohio better worth defending than Pennsylvania? any projected acquisition of importance to the public than the preservation of such a country! did not this very governor talk of the plenty of the province its defenceless state, from time to time, almost in style of invitation, as if he meant to bespeak every event was now expatiating upon! and is not he more to be upbraided for suffering those troops he recalled, if he did more, without making the strongest effort against it, the assembly who brought their protection; and if it appear from his whole conduct, he desired nothing more earnestly than that such an event should happen; and that principal endeavour to improve when it did happen to proprietary purposes, the expense of the fortunes, liberties, and lives of the inhabitants, with what abhorrence must we reflect on the pains taken in this speech, to aggravate the calamitous state of the province, and to place it to the mercy of those, who had in a signal manner deserved thanks only of Pennsylvanians, but also of all lovers of liberty and virtue distributed through the British empire?

"Had my hands been sufficiently strengthened (as he proceeded) I should have put this province into such a posture of defence, as

might have prevented the mischiefs that have since happened." A dose of venom apparently prepared and administered to poison the province; if the governor might have been their saviour, and was not, for want of proper powers, the assembly accused of having withheld them, were they considered as public enemies. To be treated as such could but follow. The populace never so ripe for mischief as in times of most danger. A provincial dictator he wanted to be constituted; he thought this would be the surest way of carrying his point; and if the Pennsylvanians had taken a turn, they would not have been the first, who like the flock in the fable, had, in a fit of despair, taken a wolf for their shepherd.

But to return: "That the Delaware and Shawanese Indians had been gained over by the French, under the insinuating pretence of restoring them to their country," constituted his next insinuation. And then in order to magnify the merits, he suggested, "That the same intelligence, sent to the king's ministers, together with a representation of the defenceless state of the province, and the neighbouring governments, that the latter might be at once prepared to defend themselves and succour them, that the back inhabitants having, upon that occasion, behaved themselves with uncommon spirit and activity, he had given commissions to as many willing to take them, and encouragement to all to defend themselves, all the government was enabled to protect them; but that they had complained much of want of order and discipline, as well as of arms and ammunition, and he was without power, money, or means to form them into such regular bodies, as the exigency required, &c.: that the designs of the enemy could only be conjectured from their motions and numbers: and that from those and the known circumstances of the province, it was reasonable to apprehend, they had something more in view, than barely cutting off and destroying some of the frontier settlements." And for a conclusion he summed up his lords the proprietaries will to pleasure as follows:

"His majesty the proprietaries having committed the people of this province to my charge and I have done, and still shall very readily do, every thing in my power to fill that important trust: and to that end, I think it my duty to call upon you to grant such supplies of money as his majesty's service is so important and dangerous a crisis, may require, and to prepare a bill for establishing a regular militia, exempting all as are conscientiously scrupulous of bearing arms, it being impossible, without such a law, though large sums of money should be raised, to prevent confusion, disorder, or conduct contrary with any degree of regularity.

"As ~~the~~ enemy are now laying waste the country, ~~the~~ slaughtering ~~the~~ inhabitants, there is no time to be lost; I therefore think it necessary upon this occasion to inform you, that I am ready and willing to consent to a law for emitting any sum in paper-money the present service may require, if funds are established for sinking the same in five years; but I cannot think ~~it~~ ~~either~~ with the powers of my commission, or the duty I owe the crown, to pass any bills of the same or a like tenor of those I have heretofore refused. And I hope you will not waste your time in offering ~~any~~ such bills, ~~as~~ you must know from what has passed between me ~~the~~ late assembly, and ~~the~~ information I ~~give~~ you, it is not in my power to con-~~sent~~ to; and I earnestly recommend it to you to afford in time that assistance which your bleeding country stands so much in need of."

So that in case they would not waive their privileges in the manner prescribed, and protect the proprietary estate gratis, their country might bleed to death if it would; for they were not to be permitted to make use of their ~~own~~ money their own way, to save it.

One act of parliament* there is, and one only, which not only admits, that governors and deputy-governors may abuse their power ~~to~~ oppress the subject, but also affects to provide for the punishment of such oppressors. But then ~~the~~ word oppression is ~~so~~ ~~an~~ and indefinite, that no subject ever did, or can derive any benefit from it. Of all the several species of oppression, that, now practised by this man upon a whole province, was surely the most grievous; and as it required no common share of firmness to withstand it, so it required an equal degree of prudence to temper that firmness, in such a manner as might obviate ~~the~~ misconstructions and misrepresentations, the withstanders had good reason to be sure would be put upon it.

Petitions from various quarters, and many of them of such an opposite tendency that they were irreconcilable with each other, poured in upon them. Some of the petitioners declaring themselves highly sensible of the zeal and diligence the assembly had shown for the interest and welfare of their constituents, in contending for what ought in justice to be granted. Others pretending to pray, that the house would ~~keep~~ up unnecessary disputes with the governor, nor by ~~means~~ of their religious scruples longer neglect the defence of the province. Both requiring to have arms put into their hands. And others expressing their fervent desires that measures might be pursued consistent ~~with~~ ~~the~~ peaceable principles, and that they would continue humbly to confide in the protection of ~~that~~ Almighty Power, which had hitherto been, as walls and bulwarks round about them.

* A. A. WILKINS, III. 12.

The assembly received all with composure; and resolved to give all the ~~the~~ they could to all. To the points enforced by the ~~error~~ they attended first; and ~~the~~ ~~the~~ off ~~panic~~ which prevailed in ~~the~~ province, undertook to rectify the intelligence he had given, which could not but contribute greatly to the increase of it. In their reply to ~~the~~ part of his speech, for instance they told him, "they could not find by the letters and ~~papers~~ he had been pleased to lay before them, that any such number of French and Indians were encamped on any part of the river Susquehanna."—What they admitted was, "that the back settlers ~~the~~ greatly alarmed and terrified; that cruelties had ~~the~~ committed ~~the~~ the inhabitants by ~~the~~ Delawares and Shawanese Indians, principally within ~~the~~ purchased by the proprietaries at Albany but the year before; that, perhaps, there might be a few of the French Mohawks among ~~the~~; but this was not very clear; and that these were to be followed, as several of the accounts said, by a large number of Indians and French from fort Du Queme, with a design of dividing themselves into parties, in order to fall on the back settlements of Pennsylvania and Virginia; and that the Indians ~~the~~ inclined to preserve their alliance with the province, seemed ~~the~~ the other hand, as much terrified, lest provoked with these hostilities, the English generally ~~the~~ ~~the~~ go upon them the barbarities so committed by the invaders; that therefore great care and judgment was, in their opinion requisite, in ~~the~~ ducting their Indian affairs at that critical conjuncture; that as the Six Nations were in alliance with the ~~the~~ of Great Britain, and numbers of them then acting with great fidelity ~~the~~ bravery under general Johnson, it seemed absolutely necessary ~~the~~ their part to make it their request to the governor to be informed, whether he knew of any disgust or injury the Delawares or Shawanese had ever received from Pennsylvania, and by what means their affections could be so alienated, as, not only to take up the hatchet against the said province, in breach of their dependence on the Six Nations, by whom they had been so long since subdued, but also of the friendly interviews and treaties, which they (the Pennsylvanians) had so repeatedly and very lately held both with them and the Six united Nations, both before ~~the~~ after the defection of part of ~~the~~ Shawanese, for whom they had particularly interposed their good offices, in procuring the liberty and sending home ~~the~~ number of their people, as it was apprehended, much to their satisfaction? as also, whether he had any knowledge of the inclination of the said Six Nations, or what part they had taken in relation to ~~the~~ cruel incursion, of the Delaware and Shawanese? they farther desired him ~~the~~ lay ~~the~~ ~~the~~

treaty ■■■ at Philadelphia in the September preceding; and declared themselves disposed and resolved to do every thing in their power, if it should appear they had ■■■■ any injury ■■■ their hands, ■■■ regain their affections, rather than by any neglect or refusal of that justice which was due both to them and ■■■ their Indian allies, entail upon themselves and their posterity the calamities of a cruel Indian war, of which they apprehended there would otherwise be but too much danger."

And the governor, the ■■■■ afternoon, sending down another message, importing, "that the enemy had fallen upon the settlements ■■■ place called the Great Cove, and slaughtered or made prisoners such of the ■■■ habitations as could not make their escape; that those lying near were quitting their habitations and retreating inwards; and that he must therefore most earnestly press them ■■■ strengthen his hands, and enable him speedily to draw forth the forces of the province, as any delay might be attended with the most fatal consequences;" they took the ■■■■ into immediate consideration, and granted sixty thousand pounds to the king's use, to be ■■■■ in bills of credit, and sunk by a tax of six pence per pound, and ten shillings per head, yearly, for four years, laid on all the estates, real and personal, and taxable within the province, and ■■■ the fourth day afterwards sent it up to the governor for his assent, who, most unwarrantably and cruelly took advantage of the terror which had seized upon the province, and which he himself had helped to accumulate, to reject ■■■ immediately; urging, that it was of the ■■■ kind with one he had so lately refused his assent to. And that it was not consistent either with his duty or his office, to exert, in matters of government, the power of his commission, much less to do what his commission expressly prohibited. So that his own safety with regard to his hand and his ■■■■ were put into the scale against the safety of the province; and his duty to the proprietaries against his duty to the king and the public; which shows, in one word, that the whole bias of such government ■■■ eccentric and unnatural.

His first duty was ■■■ concur with the assembly in whatever was necessary for the good and happy government of the province; the necessity of the grant in question, even for the preservation of the province, had been the burden of every one of his speeches and messages. ■■■ pressing ■■■ the extremity, so imminent the danger, so terrifying the confusion, that the least delay ■■■ the side of the assembly ■■■ been represented ■■■ productive of the ■■■■ consequences; ■■■ yet the smallest proprietary consideration could ■■■ duce the governor to act as if he did not believe one word he had said, or had the ■■■■

concern about any other consideration what-

Whether the proprietaries ought to ■■■■ or ■■■ he would ■■■ longer dispute. "It was sufficient for him, he said, that they had given him no power ■■■ that case; he refused to them with having ■■■ six days, and instead of strengthening his hands in that interval, with having sent him a message, for regaining the affections of the Indians, turn employed in laying ■■■ the country, and butchering the inhabitants." But then he chose to forget entirely their application to him at their first sitting, for such intelligence ■■■ they might then have proceeded to business upon, and his express declaration, when they proposed an adjournment to him, "that he had no business to impart to them." He, nevertheless, added, "that, upon the repeated account he had received of the miserable situation of the back counties, his council ■■■ unanimously advised him ■■■ repair thither himself to put things in the best order possible; and that he had hitherto declined it, that he might first know what they had to propose on this occasion; but that having now received a bill from them, which they well knew he could not give his consent to, he despaired of their doing any thing, ■■■ should immediately set off for the back counties; that if the people there had not all the ■■■■ their present distresses made necessary, it would not be for want of inclination in him, but of power; that he should take a quorum of the council with him; and that, in case they should have any bills to propose that were consistent with the duties of his station, and the just rights of government, he should readily give his consent to them whenever they were brought to him."

This menace of immediately setting off for the back counties, was also another piece of practice on the fears of the assembly. But whatever effect it had without doors, it does not appear to have had much within. On the contrary, the assembly deputed two of their members, to know his determinate resolution, "whether he would ■■■ would not pass the bill?" and ■■■ the latter case, "to desire him to return it to the house." This message ■■■ verbal; and he evaded ■■■ present reply by saying, that if the house would send him a message ■■■ writing on that head, he would return them ■■■ answer; adding, "that he should not ■■■ the ■■■ bill."

A written message ■■■ hereupon taken into consideration; but before ■■■ could be perfected, another from the governor ■■■ brought down by the secretary, importing, "that the Indians living upon the Susquehanna ■■■ amounting in all ■■■ about three hundred fighting men, had applied ■■■ him, to put the ■■■ into their hands in conjunction with the provincial forces, ■■■ to be furnished with

arms, ammunition, provisions, and strong houses, the protection of their old women, and children; that they had desired an explicit without further delay, they might either prepare to act with province, provide for their security; that they had assured him this would be the last application they should make; that in case it did not succeed, they love them as infatuated people the mercy of their enemies; that he could not but look upon this one of the important matters that ever came under their consideration; it could supposed these Indians would expose themselves to the fury of an enemy so superior to themselves, unless they vigorously supported; and as a refusal would unavoidably throw them into the arms of the French; that how fatal this must prove to the inhabitants of Pennsylvania and all the English colonies, they could not be ignorant; that he ready and desirous to do any thing consistent with his duty to the crown for the protection and assistance, well those of their allies, as of the said inhabitants; and th upon this important affair, and at the pressing instance of these Indians, he had put off his journey to the settlements, although he conceived pre- among them at that time to be extremely necessary."

Thus the defeat of one expedient made way for the trial of another; and what the governor's set-off could not effect, to be re-attempted by this put-off.

The assembly, however, equally proof against both; and having adjusted a separate answer to each, sent them up the next day, November 11, by the messengers.

In the first they signified, "that they had come together with the sincerest disposition to avoid, if possible, all disputes whatsoever with the governor; that they were deeply affected with the distresses of the frontier country, and determined to do every thing that could be expected of them for the public safety; that they had immediately voted a large for the king's service, and provided a fund for sinking the whole within five years, as recommended by the governor; that the colony had been founded of peace, they had so long maintained an uninterrupted friendship with the natives, and as the French already gained the Delaware* and Shawanese to their interest, they thought it but natural for them to inquire what of complaint been administered them, and express their rea-

to do them justice, were returned, the breach grown wider; that for their better information, without intending the least offence the governor, they had applied for the last treaty; that their message to this effect upon the cond day after their entering upon business; and the governor had not till then vouchsafed them an answer." Coming then to the bill, "They suggested apprehension, that the governor's immediate refusal of it, because it was of the kind with one he had before refused, from his not having allowed himself time to consider of it;" adding, "that indeed all for raising money were of the same kind; but this differed greatly from every former bill which had been offered him; that all the amendments (of any consequence) which he had proposed to the last bill he had refused, that for totally exempting the proprietary estate, had been admitted in this; that being as desirous as the governor to avoid any dispute that head, they had even so framed the bill, as to submit it entirely to his majesty's royal determination, whether that estate had or had not a right to such exemption: that so much time was allowed by the bill, that the king's pleasure might possibly be known even before the first amendment: that it was farther provided, that if at any time during the continuance of the act, the should declare the said exempt as aforesaid, in such the tax, though assessed, should not be levied, or if levied should be refunded, and replaced by an additional tax the province; that they could not conceive any thing more fair and reasonable than this, that the governor would or could start any objection to it: since the words* in his commission, which he pleased to suppose contained express prohibition of his passing such a bill, did not appear to them to have any such meaning; that if was one of the just rights of government, that the proprietary should not be taxed for the defence of all estates in the province, those just rights were well understood in England, the proprietaries were on the spot to plead their own cause, or if remote they (the assembly) were, might safely outside in his majesty's known wisdom and justice; that the equity of their being taxed, had appeared plain to their best friends there, that they entered into a voluntary subscription to pay their supposed quota for them, full assurance,

* A pamphlet was written in Pennsylvania, and published in London, entitled, "An inquiry into the colour of the alienation of the Delaware and Shawanese Indians from the British interest," &c., wherein will be found what reason the assembly to suspect those Indians might have been injuriously treated proprietaries and their agents.

* "Provided always, nothing herein contained, shall extend, or be construed to extend, to give you power or authority to do, perform, act, suffer, or cause to be done, performed, or agreed unto, any act, matter or thing whatsoever, by means or whereof, we, or either of us, or the heirs of us, or either of us, may be hurt, prejudiced, impeached, or incumbered, in our or their, or either of our or their royalties, jurisdictions, or rights, or interest, of, in or to, the said province or counties, or any part of them."

that if they been present, they would have done the themselves, and would repay what should be so advanced for them; that if the proprietaries had any of this zeal for the service about them, this bill, if passed, would give them a happy opportunity of manifesting it, by becoming solicitors to the king for his approbation, and refusing petition for an exemption; and that since the right of exemption contended for on their behalf, could be settled between the governor and assembly, the bill transferred the matter thither where only could be decided."

The residue of this piece contains so full, so noble, and so affecting a recapitulation of the whole dispute, and sets the selfish conduct of the proprietaries and their deputy in so clear a light, that leave must be taken to insert it verbatim.

"Our grievances have of late had so many costly bills, and of such different kinds,

acted, on pretences: some for complying with obsolete occasional instructions (though other acts exactly of the same tenor had been past more than instructions, and received the royal assent;) some for being inconsistent with the supposed spirit of an act of parliament, when the act itself did not any way affect us, being made expressly for other colonies; some for being, as the governor was pleased to say, "an extraordinary charge, without any wherein that transitory nature can and others disagreeing with non-intercourse and local contractions of a clause in the proprietary constitution, that we are now really at a loss to divine what bill can possibly pass. The proprietary instructions are silent to us; and we may spend much time, and much of the public money, preparing of flaming bills for supply, which, after all, for a time instructions, prove abortive.

"We are thus to be driven from bill to bill, without one solid reason affording us; and can money for the king's service, and recovery or security of our country, till we fortunately hit on the only bill the governor is allowed to pass, or till we consent to make such a bill the governor or proprietaries direct us to make, we see little use of assemblies in this particular, and think we might well leave

to the governor or proprietaries to make for what supply laws they please, and save ourselves and the country the expense and

trouble. All debates and all reasonings on, where proprietary instructions, just or right wrong, must inevitably be rejected. We have only to find out, if

we, what they are, and then submit and obey.—But surely the proprietaries' conduct, whether, fathers of their country, or subjects to their king, must appear extraordinary, when it is considered that they have not only formally refused to bear any part of our yearly

heavy expenses cultivating maintaining friendship with the Indians, though they reap such advantages by that friendship, but they now, by their lieutenant, refuse contribute any part towards resisting an invasion of the king's colony committed to their care; to submit their claim of exemption to the decision of their sovereign.

"In fine, have the most sensible concern for the poor distressed inhabitants of the frontiers. We have taken every step power, consistent with the just rights of the freemen of Pennsylvania, for their relief, and we have reason to believe, that the of their distresses they themselves do not wish to go farther. Those who would give up essential liberty, purchase a little temporary safety, deserve neither liberty nor safety. Such inclined to defend themselves, but unable to purchase arms and ammunition, have, as we are informed, been supplied with both, as far as could be procured, out of money given by the last assembly for the king's use: and the large supply of money offered by this bill, might enable the governor to do every thing else that should be judged necessary for their further security, if he shall think fit to accept it. Whether he could, as he supposes, "if his hands had been properly strengthened, have put the province into such a posture of defence, as might have prevented the present mischiefs," so to us uncertain; since late experience in our neighbouring colony of Virginia (where I judge every advantage for that purpose that could be desired) shows clearly, that it is next to impossible to guard effectually an extended frontier, settled by scattered single families two or three miles distance, so as to secure them from the sudden attacks of small parties of skulking marauders; but this much is certain, that by refusing bills from time time, by which great sums were seasonably offered, he has rejected all the strength that money could afford him: and if his hands are still weak unable, he ought only to blame himself, or those who have tied them.

"If the governor proceeds his journey, and takes a quorum of his council with him, we hope, he retains our bill, that it will be seriously and duly considered by them, and that the regard for the public welfare which induced them unanimously to advise his intended journey, will induce them as unanimously advise his ascent. We agree, therefore, his keeping the bill. We mostly requesting he would reconsider it attentively; and shall be ready any time to meet him for the purpose of enacting it into a law."

There is not any volume, the sacred writings excepted, a passage to be found better worth the veneration of freemen than this, "those who would give up essential

liberty, to purchase a little temporary safety deserve neither liberty nor safety," nor could lessors of more utility have been had at that time before the Parliament.

And as the other message of the Assembly, which was sent up together with this, was so solid and strong, it will not bear a bridgman.

May it please the Governor,

We have considered the governor's message of yesterday relating to the application and pressing instances of the Indians, and are glad to find that he is at length prevailed upon to declare himself ready and desirous to do any thing, consistent with his duty to the crown, in the protection and assistance as well of our allies as of the inhabitants of this province in general. We never have and we hope never will, desire him to do any thing inconsistent with that duty. But now in his power to do what he thinks the exigence requires, for the service of the crown, the protection of our allies, and of the inhabitants of the province. As captain-general, he has by the royal charter full authority to raise men and the money in his hands, granting every thousand pounds will enable him to pay the expenses. We grant the money cheerfully though the tax to sink it will be a heavy one, and we hope the bill will receive his assent immediately.

With but a bill was sent up for supplying the western and northern Indian friends and allies of Great Britain, with goods at more easy rates, supporting an agent, or agents among them, and preventing abuses in the Indian trade, which the governor desired.

The governor's answer is "that he would take the same into consideration, and give all the debate in his power." But what we hear he was pleased to give, both his head and his heart were at this time taken up with other purposes, how just themselves how agreeable to his mission, and how salutary to the province, the sequel will most properly explain.

In the course of the long and manifold controversy, the proceedings of parliament had been frequently referred to, and the rights of the house of commons as frequently urged by way of sanction for the claims of the assembly. And the proprietary-party, the governor's men, (for wherever there is influence, there such creatures will always be found) being desirous also in their turn, to avail themselves of the reading, recourse it may be presumed to the famous Kentish petition in the year 1701, as a proper precedent for them to proceed upon, and hectoring the assembly such as they could not be prevailed upon to adopt by any other means.

Willing, however, to give their copy the air of an original, they sent to represent

their representatives rather than petition, and whereas the Kentish petition humbly explored these with a positive and immoderate demand.

The mayor of Philadelphia took the lead in this turbulent transaction, and found himself dried and thirty-three crates to follow him, under the conduct of several of the principal inhabitants of that city.

To the assembly it was presented, the very day after the two messages, just received, left with the governor at a time when a bold and barbarous enemy has advanced within about a hundred miles of this metropolis, [the governor had ordered eighty] carrying murder and destruction along with them, (thus pompously to be seen) we should think ourselves greatly wronged if we did not thus publicly join our names to the number of those who are requesting you to pass a law in order to put the province into a posture of defence, &c.

A militia by law is the assurance they afterwards contend for, and to show how difficult from themselves according to circumstances and situations the government doctored here was, that the power and natural force of every country was in proportion with our which the government could not resist, that no arms of necessity were, it could answer the purposes of defence without such a law, &c.

And it was in the words they had the request to send the request.

We are well always enabled to preserve that respect to each other which we would willingly pay to those who are the faithful representatives of the freemen of the province. But on the present occasion I will forgive gentlemen if we assume characters something higher than that of humble suitors, praying for the defence of our lives and properties, as a matter of justice and favour on your side, you will permit us to make a positive and immediate demand of it as a matter of perfect and undeniable right on our own parts, both by the laws of God and man.

As also again afterwards.

Upon the whole, gentlemen we must be permitted to repeat our demand, that you will immediately frame and offer a law for the defence of the province in such a manner as the present emergency requires. The time do not permit many hands to be put to this presentation, but if numbers are necessary we trust we shall neither want a sufficient number of hands nor hearts to support and second us, till we finally obtain such a reason as we demand.

To a committee it was referred together with the address from certain of the people called quakers, (recommending peaceable measures, and insinuating that otherwise many as well as themselves would be under a

in the ■■■■ breath, they might be justly charged with doing what would be not only unprecedented and absurd, but what would infallibly secure the end aimed ■ by the governor, to wit, exempting the proprietaries from taxation; that ■ the expedient of assessing the proprietary estate by commissioners instead of assessors, they ■ not see the necessity of it; that the lords of parliament had, in the year 1692, proposed a like amendment to ■ money-bill, but finding it could not be carried, had dropped it then, and never revived it since; that it ■ one of the most valuable rights of British subjects to have their money-bills accepted without amendments, a right not to be given up without destroying the constitution, and incurring greater and more lasting mischief than the grant of money can prevent; that of the twenty amendments offered by the governor to the fifty thousand pounds bill of the last assembly, the present assembly had admitted every one of them that was of any consequence into the present bill, merely for the sake of avoiding all disputes, except that of exempting the proprietary estate; and even that had been so modified ■ they imagined no objection could remain: that they found, however, in this instance, how endless it ■ to admit such changes: seeing the governor now wanted ■ amend his ■ amendments, add ■ his ■ additions, and alter his own alterations; ■ that, though they should now accede to these, they could not be sure of being ever the nearer to a conclusion: that, ■ the passing the proposed separate bill was equally inconsistent with the governor's construction of the prohibitory clause in his commission, which ■ seemed now to have got over; so they hoped he would not, for the sake of ■ mere opinion, concerning mode and propriety, any longer refuse a bill of ■ great importance to his majesty's service, and even the proprietary estate, going daily to ruin, ■ well as the relief of the province: and that the same implicit confidence in his majesty's goodness, which induced him to pass such a ■ in any shape, might also encourage him ■ believe, that any little unpropriety, if any there was, would be graciously passed over; that, if there could be any doubts, which ■ affected with the miseries of the province; they, who ■ most of them natives of it, and who had all of them their estates there, ■ like a stranger among them; a consideration of the many bills they had offered in vain for its relief, and their earnest endeavours to give ■ great sums to that end, would solve them all; and that upon the whole, the house adhered to their bill without amendments; because ■ was a money-bill; because the whole sum was granted to the crown, ■ to be paid out of the pockets of the subject; ■ because ■ was in their judg-

ments a reasonable one. Lastly, they made ■ their request, that since, ■ such a time ■ that, disputes and contentions between different parts of the government could not but be extremely prejudicial both to the king's ■ vice and the welfare of the country, they might be thenceforth laid aside; and that the governor, by passing this just and equitable bill, would lay the foundation of such ■ agreement as might conduce to the general benefit of all concerned, and prevent the necessity they should otherwise be under, of making ■ immediate application and complaint against him to their sovereign."

They accompanied this message with certain extracts from the journals of parliament, concerning the claims of the lords and the perseverance of the commons in rejecting them; they also, in a separate message, applied for information concerning the Shawanese affair before-mentioned; and in a further message they apprized him, "That their treasury was quite exhausted by the heavy expenses lately incurred, and that they knew of no way of raising money so expeditiously as that proposed by the bill then before the governor." After which they subjoined the following expressions, "It is true, the means intended to be struck, may not be current before the thirty-first of December; but as that is not more than six weeks, there is no doubt but that labour, service, and any thing else that money ■ purchase among us, may be had on credit for ■ short ■ time, if the bill passes; and in consideration of the necessity of affording timely assistance to the distressed inhabitants in the back counties, we sincerely hope, and once more earnestly entreat, that the governor will no longer refuse or delay his assent to it."

At this time the house had a militia bill under their consideration, framed in compliance with the request of sundry petitions they ■ received, setting forth, "that the petitioners ■ very willing to defend themselves and country, and desirous of being formed into regular bodies for that purpose, under proper officers, with legal authority" the bill therefore was, as the title expressed, "for the better ordering and regulating such as ■ willing and desirous of being united for military purposes." It gave these the power they desired, without compelling others who might be conscientiously against bearing ■ which respect ■ conformed with the governor's particular recommendation often repeated.

■ was sent up to him on the twenty first; and, at the ■ time, the house called upon him for his result on the ■ already before him.

■ is more true, than, that the more clearly and unanswerably you convince ■ that he is in the wrong, the ■ you ■

perate him against you, and never was any truth so strongly illustrated than this appears to have been in the person of this high and mighty governor. He could not forgive the assembly, because they had put him out of concert with himself. The poorer he found himself in arguments, the more strongly his passions excited him to make use of invectives. Invective became his only resource then, and little power he had over himself yet further showed how unfit he was to be a governor.

Having pronounced his proposal to the assembly to be reasonable one, and declared himself no less astonished than grieved, that they should reject it, and, especially, as their best argument for doing was founded on a new and lofty claim of privilege he denounces both to prove the novelty and count for the assumption of it by saying,

It had never been heard of till towards the close of Mr Hamilton's administration and that the assembly being then proved on the same fact of doctrine first introduced and have in the mind the claim is wholly to satisfy money for warlike purposes only, it is unwarrantable power to them.

For this extract from the minutes of the assembly went together with this message to them in his way for his proofs but it is a very right to amend.

In a speech in the next session of the assembly he said that he was not in the way for his proofs but it is a very right to amend.

For this extract from the minutes of the assembly went together with this message to them in his way for his proofs but it is a very right to amend.

The first paragraph contained also some strange intimations. That notwithstanding that they were their own business they had chosen to be both bills together that they might have better chance of having their business done and his statement subjected the assembly.

And what with his emphatic declaration that the crown in the common law would be the same as any other law or the law of the great assembly if the assembly is to be exempted was just.

It was in the mind of the assembly that they were their own business they had chosen to be both bills together that they might have better chance of having their business done and his statement subjected the assembly.

The next paragraph hardly to be deciphered at all except that in the close of it he attempts to justify his own inconsistency in that by saying, he had separated the two parts of the bill,

that the proposition might be served either way, which the assembly had been altogether prevented of before. Any absurdity in this method he professed himself unable to discover, and good natured construction put upon it by them, of his intending to secure an exemption of the proprietary estate

thereby, he said he should leave among the rest of the groundless charges against him.

Condescend he did, however, offer one amendment more, which according to him was to reconcile and namely, by the addition of the following words to the description clause proposed to be added to the first bill to "The estates of the honourable The Proprietors and Richard Penn esquires excepted which shall be taxed as the same are directed by a particular law passed or to be passed for that purpose." Not willing however to enter into the controversy here he proceeded to declare

that the extracts from the journals of parliament proved nothing to the purpose for which they were quoted to the satisfaction of England and the constitution of Pennsylvania being in every respect the same as in the former and that they had admitted, never leaving out the most material one beside the proposal of a separate bill necessary expedient so that they had no reason for burying out to us a lofty trail of rhetoric concerning the assembly's management. The extracts from the journals of parliament he had rejected the whole of verily and all rejected for sufficient reasons which we have seen and that they were disposed to relieve their country they had in both ways, to which he should have no objection. Proceeding then to the next topic and his being treated as a stranger he takes a retrospective of the conduct of the assembly in that they had stated Mr Hamilton though a native with many advantages they had treated him and here comes a paragraph or two which he has been so kind to send me.

And here was I inclined to go beyond my own duty. I might be with regard to how contemptuously you treated the particular offer of four hundred pounds erecting a place of strength in the Ohio together with an offer of but I did not think it was necessary to support which officers were made it a time when a more convenient would probably have been found in my calamities we groan under.

I might also observe that when Mr Hamilton first called upon a pursuant to his maxims orders to grant such supplies would enable him to draw in the strength of the province and corrupt the officers. You would not admit that the French encroachments and fortifications on the Ohio were within limits his request was the reb, seeking an excuse to do what was required by you.

He had also the disadvantage to mention the late defeat of his majority forces in expedition having happened for want of that timely support and assistance which it was in the power of the province to have afforded. And having again declared, that he could not

recede from his amendments, and expressed his satisfaction in their intended complaint against him, he concluded with the two following paragraphs, which are equally insidious, injurious and unbecoming.

"Upon the whole, it appears clear to me that you intended that any of your bills should pass for raising money to the province; and this to be placed beyond all dispute, since those people, under whose influence you are chiefly known to be, are said to have declared publicly to you, that they would sooner suffer than pay towards such purposes.

"However, I shall put you to proof more, both of your sincerity and mine, in our professions of regard for the public, by offering to agree to any bill, in the present exigency, which is consistent with my duty to pass, lest, before our present disputes can be brought to an issue, you should neither have a privilege to dispute about, nor a country to dispute in."

Together with this message, the secretary also brought down another altogether as extraordinary, in which the governor acquaints the house, "that he had considered their bill, for better ordering and regulating such as were willing and desirous to be united for military purposes within that province: though there were many things in it of a very extraordinary nature, and that he was convinced it would be the purpose of defending the province, even if it could be carried into execution, in any reasonable time, which he was afraid it could not, yet, to show he was desirous of doing any thing that had a chance of contributing to the safety of the province, he could consent to it in the shape they had it, as it would be entering into disputes, should he amend it properly."

And what is, perhaps, more extraordinary still, the governor on the same day, namely, Saturday, November 23, received despatches from the proprietaries, the contents of which he did not communicate to the house till the Monday following; by which time he was ready to unmask such a variety of batteries, as he thought would be sufficient, by their very noise alone, to intimidate his antagonists at least, that they should not presume to make him such a return to his last message as they had done to his former.

The first was a report from his council, containing such a discussion of Indian affairs as was taken for his discharge in full of the Shawanese complaints mentioned in a message from the assembly, their first sitting, in consequence of the governor's message.

The second was a call upon them to provide a number of French inhabitants banished out of Nova Scotia by governor Lawrence, at a

through the rest of his majesty's colonies along the continent.

And the third only notified the receipt of the proprietaries' despatches above-mentioned, but farther specified, "That, such as their names and regard for the people, that they no longer received the account they had sent them of general Braddock's defeat, than they sent him an order upon their receiver-general for five thousand pounds, as a free gift to the public, to be applied to such uses as that event might make necessary for the common security of the province; that he directed the receiver-general to have the money ready as soon as possible; and that it should be paid by such persons as should be appointed by act of assembly for the disposition of any money they might think necessary for the defence of the province in that time of danger." Two other clauses were also added: one importing, "That this timely and generous instance of the proprietaries' care and anxiety for the inhabitants, could not fail making the most lasting impression upon the minds of every well-wisher to that country;" and the other, "That the governor upon that occasion again recommended it to them to lay aside all disputes, and to grant such supplies in addition to what the proprietaries had given, as his majesty's service and the pressing exigencies of the province required."

That they might not, however, have any merit to plead on either of these heads, but might seem to be driven by force into every such measure as was thus recommended, on the very next day after this, and before it was possible for them to come properly to any resolutions at all; again the mayor of Philadelphia, having now also prevailed with his corporation to join him and his promoters, with a remonstrance, in a style altogether dictatorial, "reproaching them with losing their time in deliberations, while their fellow subjects were exposed to slaughter, and debates about privileges while they were deprived of the great privilege of self-preservation, and requiring them to postpone all disputes, grant necessary supplies, and pass a reasonable law for establishing a militia; and in the close of it, recommending despatch, as the people seemed already in a deplorable and desperate state, and they feared it would not be possible to preserve the peace and quiet of the city, or of the province itself, much longer."

The house, notwithstanding, to be consistent in things, called, in the first place, upon their committee for the message they were directed to prepare to the governor's answer, which was ready, and was submitted as follows; in wit,

"That if they could be astonished at any thing which came from their governor, they should be astonished at his repeating charges

calumnies, groundless — themselves, and repeatedly, fully, publicly refuted; that instead of refuting them, therefore, they should only refer to their former refutations; that what he says concerning the risk of losing so important an act — sophistry and amusement: that, as they before asserted, conditional or alternative clauses were common; that in the — act there was another, namely, that in case the four year tax did not produce sixty thousand pounds, the defect should be supplied by — additional tax; and, if it exceeded, the surplus should be disposed by — future act, to which the governor had made no objection; that, notwithstanding all the dust he had attempted to raise, it — therefore clear to them, that the bill was entirely unobjectionable. that then made — more proper than his, and as safe both for the bill, and the pretended rights of the proprietary, that his commission had no such prohibition as he affected to find in it; and that they could not, in — money-bill like this, admit of amendments not founded — reason, justice, or equity, but in the arbitrary pleasure of — governor, without betraying the trust reposed in them by their constituents, and giving up their just rights as free-born subjects of England, that by the charter their constitution was founded upon, in addition to the privileges therein specially named, they are moreover entitled to all other powers and privileges of an assembly according to the rights of the free-born subjects of England, and as is usual in any of the king's plantations: — America; that the free-born subjects of England had a right to grant them own money their own way, the governor did not deny, nor that the same was usual in these plantations; that therefore they had the — right, and should have had it if it had not been — specified in their charter; such free-born subjects, instead of losing any of their essential rights, by removing into the king's plantations, and extending the British dominions — the hazard of their lives and fortunes: being, — the contrary, indulged with particular privileges for their encouragement in — useful and meritorious — undertaking; that indeed their constitution was, in — respect, no way similar to that of England, namely, the king's having a natural — with his people, the crown descending to his posterity, and his — power and security waxing and waning with the prosperity of his people; whereas plantation-governors were frequently transient persons, of broken fortunes, greedy of money, destitute of all concern for those they governed, often their enemies, and endeavouring — only to oppress but defame them, and thereby render them obnoxious to their sovereign, — odious to their fellow-subjects; that their present governor not only denied them the privileges of — English —

tion, but had endeavoured to introduce — French one, by reducing their assemblies to the insignificance to which the French parliament had been reduced; had required them to defend their country, and then put it out of their power, unless they would first part with some of the essentials which made it worth defending, which — in fact reducing them to an Egyptian constitution: for, that as the Egyptians — perish by famine unless they became servants — Pharaoh, so they by the sword, unless they also became servants to — absolute lord, — he pleased to style himself, absolute proprietor, that all comparisons made by the governor of himself to his immediate predecessor would be — his — disadvantage, the difference between the former gentleman and his — being having been but small, in comparison with those then subsisting, and conducted by him with some tenderness to his country: that how much sower the people were at that time dissatisfied with some particulars — his administration, the present had given them abundant reason to regret the change; that — to the collusion charged upon them, in not intending any of the bills they had offered for the defence of their country should pass, they could, with humble confidence, appeal to the searcher of all hearts, that their intentions perfectly corresponded with their actions: that, — to mention the unfairness of ascribing to a whole people the indiscretion of a few, [those who had declared they would suffer rather than pry for a litary measure] the governor himself must own, they could — be under the influence be supposed, when they assured him that several more votes had been given for those measures since they were petitioned against, than before: that they were totally ignorant of the many other ways of raising money, to which the governor had no objection, as also what that other bill might be, which he might think consistent with his duty to pass; that he thought it inconsistent with his duty to pass any bills contrary to his instructions from the proprietaries, which (like the instructions of the president and council of the north, mentioned by lord Coke, 2 — p. 246.) were to them impenetrable secrets: that, according to the — great lawyer's remark on governing by such instructions, *maxime aut aures ubi jus est vagum aut incognitum*. that, therefore, it would be in — for them to search for other ways, or frame other bills; and that here the matter must — to his majesty should be graciously pleased to relieve them; since, with the governor, they could no otherwise hope to end their unhappy divisions, than by submitting to — part of the other of the miserable alternative — chosen by him; either — to have a privilege worth disputing about, or be deprived of a country to dispute it in."

But though this answer was, in every particular, conformable to the _____ of the house, and _____ afterwards printed in the appendix to their proceedings, they declined making use of it; and that for the present reported by the committee was to the effect following: _____ wit, "that the bulk of the governor's long message consisted of groundless charges and calumnies, which having been repeatedly refused, might be safely left to themselves; that though they had prepared a full _____ the rest, yet _____ there were now some hopes of an agreement with him in the money-bill, which _____ the principal business of the session, they submitted it _____ the house, whether it would not be _____ consistent with their prudence and moderation to suppress it; that there being, however, _____ or two new charges brought against the assembly of that province, it might be proper to take some notice of them; that the first of these was, that they contemptuously treated the proprietary offer of four hundred pounds, for erecting a place of strength _____ the Ohio, and of one hundred pounds per _____ towards its support; that this contemptuous treatment was not specified, but might be explained, by _____ passage out of the *Brief State*, [a proprietary pamphlet] where it is said, "the house refused this proposal a place in their minutes;" that the fact _____ however, otherwise; that the said proposal appears _____ several pages there specified; and that nothing further than what is there, could properly be made a part of those _____ cords; and the reason thereof _____ then assigned in the following narrative; which, for various reasons, deserves to be made _____ part of this discourse.

"The late governor Hamilton, after sending the message of the thirteenth of August, 1751, requested a private meeting with some of the members of that house, but without any authority from the assembly.

"At this meeting governor Hamilton offered, _____ behalf of the proprietaries, four hundred pounds, towards building such a house upon or near the Ohio, (but not _____ syllable of maintaining _____ supporting it.) The Indians were _____ far from pressing _____ engaging in it, that instructions were drawn by this government to require it of them, at a treaty held by G. Croghan, in May, 1751, and they evidently showed themselves apprehensive, such an attempt might give umbrage to the French, and bring them down the Ohio with _____ armed force, to take possession of those lands. And about two years afterwards, these very Ohio Indians, _____ the treaty held _____ Carlisle, in October, 1753, say to our government, 'I desire you would hear and take notice of what I am about to say; the governor of Virginia desired leave to build _____ strong house on Ohio, which _____ to the _____ of the governor of Canada, _____ we _____ caused him to

_____ country.' Treaty, page 8. The same sentiments appeared among the _____ Nations, at the Albany treaty; 'that _____ English and French _____ only contending which of them should have their lands.' The reasoning made _____ of by the members _____ this private conference with the late governor _____ that the land _____ they proposed to build _____ claimed by the crown, and _____ very probably beyond the limits of Pennsylvania; _____ at least it would be beyond the reach _____ our laws, _____ appeared by the people already settled _____ Juniata, just beyond the North mountain; that this, instead of healing, might create irreconcilable breaches with _____ Indians, considering what sort of people would probably reside there; that the Indians had never heartily requested it, nor did it seem to be their interest _____ to do; and if they had requested it, _____ they were in subjection to the Six Nations, it would be necessary to have their assent; that this precipitate act would probably create a jealousy in the French, and give them _____ pretences of _____ infraction of the treaty of Utrecht _____ part, and might finally engage the British nation in a war with France. These, and many other reasons _____ were urged _____ that private conference, as several of those members appeared, _____ governor Hamilton's satisfaction. And it appears by George Croghan's journal, that those Indians neither did, nor did they think they could, give leave to build a house on the Ohio, without the express consent of the Six Nations; and accordingly they took two months to acquaint the Onondago council with this transaction, and then to send us word, which they never complied with.

"It appears further, by the assembly's message to governor Hamilton, on the twenty-first of August, 1751, taken from the informations of Conrad Weiser, and Andrew Montour, 'that the request inserted _____ George Croghan's journal _____ made by the Indians at Ohio to this government, to erect a strong trading house in their country, as well as the danger _____ in there said they apprehended from the attempts of the French, _____ misunderstood, _____ misrepresented by the person, the governor confided in for the management of that treaty.' But it may be unnecessary to pursue this inquiry into _____ affair wherein George Croghan thought himself unkindly, if _____ unjustly, sacrificed to private ends, as is _____ known _____ such _____ were acquainted with _____ affair, and appears in the letters and other papers _____ by himself _____ some of the members of that assembly."

Coming then _____ the other new charge, namely, that the assembly would not admit, that the French encroachments _____ within _____ king's dominions, they maintain that _____ charge is _____ ill-founded as the other; "For, say they, though the house never _____ upon

them to ascertain the bounds of the king's dominions, they directly or indirectly denied those encroachments to be within them."

They proceeded to examine the council by the governor, to prove that money-bills had been amended by former governors. They demonstrated in ten several instances, those examined had been fairly represented. And they concluded in these words: "were all these to be deducted from that, it appears there are but few instances in our journals of proper money-bills amended by the governor, and the amendments agreed to by the house; this is no more than acknowledged by the preceding assembly, in their message of the 10th of September, where they say, that in a very few instances their predecessors might have waived that right on particular occasions, but had given it up."

Scarce had the house agreed with their committee in laying aside, for the present, the first of these answers, for the assigned in the second, than certain inhabitants of Philadelphia, joined with others of the county of Chester, in all twenty-nine persons, thought themselves at liberty to assail the house in person with a petition, desiring, that the governor and the house would in the fear of God, &c. And the taken of this strange incident (which followed the Philadelphia remonstrance in much such manner as the logion-letter followed the Kentish petition before referred to) will serve at once to show the ferment which then prevailed in the province, and yet how the people in general from desiring to be preserved against the incursions of the enemies, at the expense of their constitutional liberties; is here inserted, to wit:

"The speaker told them, that it well known this house was composed of members chosen without any solicitation on their parts, to be the representatives of the people, and guardians of their liberties; that the whole powers the house were invested with, were derived from the people themselves, and that as the house hitherto, as they should continue to discharge the high trust reposed in them to the best of their understanding and abilities; and then them, whether they desired that the house should give any rights, which, in the opinion of the house, the people were justly entitled to? some of the petitioners, in of the whole, answered, no; they far from requiring any thing of kind; all they wanted was, that expedient might fallen upon, if possible, to commodate matters in such manner, that the province might be relieved from present unhappy situation. To this the speaker replied, that nothing could be agreeable to a harmony between the two

branches of the legislature; and the governor had yesterday evening down a message, intimating that the proprietaries are now disposed to contribute a sum of money towards the security of the province. there was a great probability that controversies on that head were at an end, and that some method would be speedily taken, for relieving the province from present calamities."

In effect, the governor having given his consent to the militia bill, and the house having made some immediate provision, for landing relieving the miserable French exiles obtruded upon them from Nova Scotia, they proceeded to resolve, first, unanimously,

"That the right of granting supplies to the in this province, alone the representatives of the freemen in assembly, being essential to an English constitution. And the limitation of all such grants, as to their matter, manner, measure, and time, is to them only." And then,

"That in consideration of the governor's message of yesterday, by which it appears that the proprietaries have sent him an order the receiver-general for five thousand pounds, to be paid into the hands of such persons as be appointed by act of assembly, and applied with such sums as the assembly should grant, to such uses as may be necessary for the security of the province; and as would not be reasonable or just, at this time, to tax the proprietary estate, in order to raise money therefrom, over and above the said grant from the proprietaries, the house will immediately proceed to form a bill for granting a sum of money to the use of the crown, and therein omit the of the said estate."

Accordingly, such a ordered the same day; and, in full confutation of all the injurious surmises that they not much intend to their country, prosecuted with much zeal and alacrity, that it received the governor's the next day but one following.

Thus the two branches of the legislature were at last united in the great duty of making contribute to the defence preservation of

But though the for the present over, marks of recent turbulence still remained. The governor, though frequently called upon, could not pass a bill for regulating the Indian trade; the house, therefore, thought proper to press him with such a message, should, by explaining of the bill, not only indicate the of the abuses was calculated correct, but oblige him, if possible, to account delay; the message agreed upon was as follows, viz.

"May it please the Governor,

"As bill for regulating the trade, by employing sober and discreet persons among those nations that remain friends to this province, the purpose of furnishing them with the necessary goods in exchange for their peltry, easy and reasonable rates, on of the public, and thereby securing them to our interest, seems us bill of great importance this juncture, we very desirous of bringing it to a conclusion as soon possible: and therefore once more earnestly request the governor would be pleased let know his sentiments upon it, and communicate the amendments he is pleased say he thinks needful, that may consider them. The bill has already lain before him above two weeks; and we fear, if something of the kind is not immediately gone into, loss few remaining Indians on the Susquehanna; for of our traders now go among them, and they dare not come down to our settlements to buy what they want, for fear of being mistaken for enemies, there seems to be the greatest danger of their being necessarily driven into the arms of the French, to be provided with the means of subsistence."

To which the governor pleased to the following evasive answer:

"Gentlemen,

"Since your bill for regulating the Indian trade has been before me, my time has been so much taken up with the variety of business that the circumstances of this province made necessary to be despatched without delay, that I have not been able to give it the consideration bill of that nature requires, not to examine the laws of the neighbouring provinces upon that subject. But as the Indian trade stand, I cannot conceive that it will be dangerous to the public to defer the completing of this act till the next sitting; especially as it will necessary call in and confine friendly Indians to certain limits, to prevent their being mistaken for, and enemies, where they must subsisted. This will hinder them from hunting, so that they will have no skins no trade with."

And now, after having so often treated the assembly as a body fitter to be prescribed to, than consulted with, he took into his head to apply to them for advice; on what account it is reasonable his own message explain.

"Gentlemen,

"General Shirley, pursuant to his majesty's orders for that purpose, has requested to meet him at New York, in a congress he has there appointed, as you observe by of a letter upon that subject, which secretary will lay before you. At

that meeting, business of the greatest quence majesty's service and the safety of these colonies will be considered and eluded, and the of the next year's operations may in a great measure depend on the timely resolutions of that council.

"I have lately received such intelligence to the state of Indian affairs, will make it necessary for the colonies to join in some general treaty with those people, well the southward the northward, which can no way so well be resolved on as at the congress now already met.

"And the other hand, the late incursions of the enemy, and the necessity there is of putting this province into a posture of defence, as well carrying into execution the several matters in agitation, call for my presence, the authority of the government. Under these difficulties, I find myself a loss which service to prefer, and desire you will give me your sentiments this momentous and pressing occasion."

Now this congress in fact, to be a council of war; and the instructions the general received, according to his own account, was such of the governors on the continent, far westward Virginia, as could, to attend it.

Governor Morris, therefore, would have been under no great difficulty on this head, if the circumstances of his province had been really such he had been always fond of setting them forth.

But his purpose was to go; and he wanted the countenance of the assembly to concur with his inclinations, that he might not be charged with inconsistency, either by stimulating them with false alarms, deserting them in real dangers.

The assembly, however, chose leave the ty upon himself, as he alone acquainted with the necessity of his attending the said congress; but then they left him at no loss concerning their opinion; for they admitted the present circumstances did call strongly for his presence at home, and for the whole authority of government; and they also to the expense of sending missionaries to New York, to supply his place, either in concluding on the proposed by the crown, or concerting measures for a general treaty with the Indians. "For, said they, this province always has been, as we are ready to join with neighbouring colonies in any treaty with the Indians, that may conduce to the general advantage of the British interest, well charge, to make such tend particularly to our own and security."

 noble declaration! what alone sufficient to silence the invectives which have been liberally bestowed province:

and what, in modern proprietary documents the speeches and messages of deputy-governors, it is very hard to match.

Of the message, however, laid on the present state of Indian affairs, the house took the advantage to recollect what had passed between them and the governor in relation to the Shawanese complaint; with an equal regard to truth and candour, took in a message the governor, to express themselves upon it as follows, viz.

"May it please the Governor,

"We have considered the report of the committee of the governor's council, to which he is pleased to refer us for an answer to our inquiry, relating to a claim of the Shawanese Indians, on the lands of Conedoguinet.—We are far from desiring to justify those Indians in their late outrages and murders, committed against the people of this province, in violation of the solemn treaties. We believe that great has generally been taken to do the Indians justice by the proprietaries in the purchases made of them, and all our other public transactions with them; and they have not the ideas of legal property in lands that we have, and unless think they have right, when in law they have none, but yet are cheaply satisfied for their supposed as well as real rights we our proprietaries have done wisely, only to purchase their lands, but to purchase them more than once, as the governor says they have done, rather than have any difference with them on that head, or give any handle to the enemies of the province to exasperate those people against us. It appears indeed, from the report, that they could have but a slender claim for a claim of satisfaction for those lands: we are however, convinced, by original minutes taken by one of the commissioners at the treaty of Carlisle, now lying before us, that the Shawanese chiefs mentioned that claim of theirs in the lands in question at that time, and were promised that the matter should be laid before the proprietaries after the public general business of the treaty was over, and was not inserted in the printed account of the treaty, perhaps because it was thought to relate more particularly to proprietary than to the province; and of the persons being himself concerned in the proprietaries' affairs, there is no reason to believe he would take care to get it settled; doubtless he would have done so, he not, as appears by the report, entirely forgot the whole transaction. We are sorry it was done, though probably the instigations, present situation, and power of the French, might have been sufficient to have engaged those Indians in the war against us."

They also took consideration the governor's answers to their several messages in

relation to their bill for regulating the Indian trade; and resolved thereon, "That it is their opinion, the governor evaded giving any answer, offering amendments to it, that might be transcribed and sent to the proprietaries for their opinion to assent; that the said bill was of great importance in the present critical situation of affairs; that the delay or refusal of entering into the consideration thereof at that time, might be attended with very consequences; and that those consequences would not lie at their door."

And having before resolved to adjourn till the first of March, they moreover took upon them to provide for the subsistence of certain friendly Indians, settled near their frontiers, in the winter.

Nor was this all: for the incidents of the session having shown, that it was high time for the assembly to assert their own authority, as far forth as least, the factions and intrigues of the province at that time subsisting would permit, they called for the report of their committee appointed to sit on the several irregular and improper applications which had been made to them during the session; and having duly considered it, ordered it to be entered on the minutes of the house.

Every body knows, that the reports of committees can consist of opinions only: and these gentlemen give it as theirs, "that though it was the undoubted right of the freemen of the province, not only to petition, but even to advise their representatives on suitable occasions, yet applications whatever to the house, ought to be respectful, decent, pertinent, and founded in truth."

"That the petition of Moore and his thirty-five followers, concerning unnecessary disputes with the governor, when no disputes had been begun; and insinuating, that the house had neglected the security of the province from conscientious scruples, was founded in mistakes and misapprehensions of facts and circumstances." [They might have said much more if they had thought proper.]

"That the petition intitled, an address of certain people called quakers in behalf of themselves and others, (signed by Anthony Morris and twenty-two others) in favour of engaging for any more than themselves, and insinuating they would be under necessity of suffering rather than paying for other than peaceable measures, had notwithstanding the decency of language, assumed a greater right than they were invested with; and, inasmuch as the petitioners had not duly considered former precedents, especially the grant of two thousand pounds to the crown in the year 1711, was an unduly and discreet application to the house at that time."

The representation from the mayor of Philadelphia, and thirty-three others, said to be of the principal inha-

bitants, but in reality a great part of them not freeholders, many of them strangers and obscure persons, and some of them under age, as it charged the house with not having a proper concern for the lives of the inhabitants. ■■■ dictated, in a haughty peremptory manner, to the representative body of the whole people, what laws ■■■ make, and threatened to force a compliance, &c. if its commands were not obeyed, was a paper extremely presuming, indecent, insolent, ■■■ improper; and that the wud mayor, by becoming a promoter and ring-leader of such ■■■ insult on that part of the government, and by his authority, arts, and influence, drawing in ■■■ many indiscreet or unwary persons ■■■ partakers with him therein, ■■■ exceedingly misbehaved himself, and failed greatly in ■■■ duty of his station." Expressions equally applicable ■■■ the governor himself as chief magistrate, if the mayor in all this, only acted ■■■ a tool of his.

And upon the whole, "that the said paper ought ■■■ be rejected."

Thus ended ■■■ memorable session on the ■■■ of December; and that day two months, instead of that day three months, which was the time prefixed by their own adjournment, the governor, having, in that interval, left his province, in order to attend the military congress ■■■ New York, notwithstanding the preventives thrown ■■■ above by the assembly in his way, thought fit to ■■■ them again; and by the medium of a written message in the usual form, told them, "that he had called them together, ■■■ consider of the plan of operations concerted in the late council of war held ■■■ that place for the security of his majesty's dominions on the continent; that he had directed the said plan to be laid before them, under a recommendation of secrecy, that no part of it might be suffered ■■■ transpire; that the many encroachments of the French, &c. sufficiently showed what they had farther to expect, if they ■■■ by ■■■ united, vigorous, and steady exertion of their strength, dislodge and ■■■ them within their own just bounds; that he ■■■ persuaded this would be found the best way of providing for their own security; and that therefore, he must recommend it to them to grant him such supplies as might enable him to furnish what was ■■■ wanted from that province towards the general service; that they must be sensible their success would very much depend ■■■ their being early in motion; and that he made no doubt, they would use ■■■ greatest diligence and despatch in whatever measures their zeal for the public ■■■ might induce them to take upon the present occasion; that every thing possible had been done ■■■ the security of ■■■ province; that a chain of forts and block-houses, extending from ■■■ river Delaware along the Kittatinny hills [where he ■■■ formerly said the 1500 French and Indians had taken post

in their way ■■■ Philadelphia] to ■■■ Maryland, was then almost complete; that they were placed at the most important passes, at convenient distances, ■■■ garrisoned ■■■ detachments in the ■■■ of ■■■ province, ■■■ believed, in ■■■ the officers and men posted in them did their duty, they would prove ■■■ sufficient protection against such parties ■■■ had hitherto appeared on their borders, that he had directed the ■■■ of the several conferences ■■■ with the Indians, and other papers relating ■■■ Indian ■■■ (by which it appeared that the bulk of ■■■ Indians living on the Susquehanna, ■■■ only ■■■ the French interest, but deaf to all the instances of the ■■■ Nations thereon) to be laid before them; that the heads of those nations had been convened by the timely care of general Shirley, and were then met in council ■■■ treat ■■■ those ■■■ other matters; that he was informed, they ■■■ much displeased with the conduct of the Delaware and Shawanese, that they seemed inclinable to take up the hatchet against them; and that he hoped the warmth with which general Shirley had recommended this matter to them, would induce them to ■■■ vigorously on this occasion."

Connexion is not to be expected in this gentleman's proceedings; his congress we have already ■■■ converted into ■■■ council of war, instead of a general treaty with the Indians, he brings back a plan of military operations, and while the levies were actually making of the sixty thousand pounds, just given, for the defence of the province, he calls upon them for a supply, towards an offensive war.

By the plan settled among the governors ■■■ their late council, which is now in print, the colonies were to raise ten thousand two hundred and fifty men, to be employed in two bodies against the French settlements ■■■ the ■■■ Ontario, and Crown-point; and of these, fifteen hundred were to be supplied by Pennsylvania.

The governor, however, did not think it expedient to push this demand ■■■ the cavalier manner he had hitherto practised; probably convinced that it was what the province neither would ■■■ could comply with; and that consequently he should only draw down ■■■ much the more odium on himself.

Besides, the assembly ■■■ met, he, for a circumstance occurred, which, though of an almost private nature, served ■■■ evince the truth of what has been just insinuated.

The several recruiting parties distributed through the province by the order of general Shirley, ■■■ renewed the old practice of enlisting purchased servants; the persons thus deprived of their property brought their ■■■ complaints before the assembly; the assembly not only received the petitioners favourably, but ■■■ espoused their ■■■ in the strongest terms to the governor; and as their address

on this occasion, contains such a state both of the province and its conduct, as will serve to make the reader equally acquainted with both, the most material paragraphs here adjoined.

"We presume that no one colony in the continent afforded free recruits to the king's forces than Pennsylvania; men have been raised here in great numbers for Shirley's, Pepperell's regiments, for Hallett's and Dunbar's, the New York, Carolina independent companies, for Nova Scotia, and even for the West India islands. By this, and the necessity under of keeping up a large body of men to defend our own frontiers, we are drained of our hired labourers; and as this province has but few slaves, we are obliged to depend principally upon servants to assist in tilling the soil. If these are taken from us, we are at a loss to conceive how the provisions that may be expected out of this province another year, the support of the king's armies, are to be raised.

"We conceive that this province could not possibly have furnished the great numbers of men and quantity of provisions it has done for the king's service, had it not been for our constant practice of importing and purchasing servants to assist us in our labour. Many of these, when they become free, settle among us, raise families, add to the number of our people, and cultivate more land: and many others who do not settle, are ready and fit to take arms when the crown calls for soldiers. But if the possession of a bought servant, after purchase made, is thus rendered precarious, and he may at any time be taken away from his master, the pleasure of a recruiting officer, perhaps when most wanted, in the midst of harvest or of seed time, or in any other hurry of business, when another cannot be provided to supply his place, the purchase, and of course the importation of servants will be discouraged, and the people driven to the necessity of providing themselves with negro slaves, as the property of them and their service is at present more secure.

"Thus the growth of the country by increase of white inhabitants will be prevented, the province weakened rather than strengthened (as every slave may be reckoned a domestic enemy) one great and constant source of recruits be in a great measure cut off, Pennsylvania soon be unable to afford more men for the king's service, than the slave colonies now do."

They also accompanied their address with a copy of a letter from general Shirley to colonel Dunbar, in which he declares himself convinced, that the enlisting of apprentices to the service would greatly disserve his majesty's interest, as well as be most grievous to the subject, and in the

strongest manner recommends it to him to avoid doing it.

Even the governor in his answer acknowledged the fact; admitted it to be a great hardship, and an unequal burden upon the inhabitants of the province; but, instead of issuing his proclamation, strictly charging the commanding all officers civil and military to be aiding and assisting to the inhabitants, in securing or recovering their servants, when any attempt should be made to force them away, as required by the assembly; told them, the courts were open, and that the injured might there seek out his remedy by due course of law.

He also signified, that general Shirley had now altered his opinion, and issued orders different from those he had before given to colonel Dunbar. And in effect, a letter from the said general, in answer to one of the governor's, was after communicated to the assembly, in which he pleads the necessities of the service for a continuance of the practice; and in justification of it, cites the authority of his government, where it was common, he said, to impress both indentured servants and others for garrisoning the frontier towns, where they often remained several years."

And his thus renouncing his former conviction, is so much the more remarkable, because the province had recently made his troops a voluntary present of warm waistcoats, stockings and mittens; and in his letter of acknowledgment (dated but five days before that to the governor) to the assembly, addressed to one of the members, he expresses himself as follows:

"I am now, sir, to acquaint you, that I have ordered a distribution of clothing, and to desire the favour of you to make my acknowledgments to the assembly for this second instance of their public spirit and zeal for his majesty's service, and the general good of these colonies, given by them in the expedition against Crown-point.

"I cannot but hope that so laudable an example will inspire the other colonies with the like spirit, so necessary in this critical conjuncture for putting a stop to the increase and devastations of the French and their Indians within our borders, and placing the British northern colonies in a state of security against the attempts which, from the armament sent the last year from France, and their known designs, we have the utmost reason to expect they will push this year; and that it will in time to animate the government of Pennsylvania in the present cause, as it hath hitherto done, so highly to their advantage.

"Be pleased likewise, to assure them, sir, that I shall not be wanting in making a just representation to his majesty of these marks of their zeal for the service of their king and

country, and doing every thing in my power for the service of the province."

It is indeed remarkable of Pennsylvania, that though represented as treated by its enemies, as if it were the barren fig-tree, applications were continually made to it on all sides, as if it were capable of furnishing all demands, and incapable of refusing any.

His majesty having graciously ordered a considerable present to be sent to New York to the Six Nations; and sir Charles Hardy, governor of that province, being soon to hold a meeting with them, in order to the distribution, Pennsylvania was called upon to follow the example of New York in making an addition to it: and governor Morris prevailed upon by governor Hardy to make the demand accordingly.

Nor was the assembly to it: the province had agents at that very time with sir William Johnson, to sound the disposition of those nations towards them, and as sir Charles Hardy's meeting was not to take place till towards the end of March, and the governor's message dated February 16, they apprehended that no inconveniences could ensue from their not giving a determinate answer till the return of those agents, which was very soon expected.

And in the mean time, as the governor could not mention Indian affairs to them, without putting them in mind of the bill, which had been so long in his hands for regulating the Indian trade, they again called upon him to take it into consideration.

They had now a full month; and received a message from him, recommending a stop to be put to the exportation of provisions, from ill-grounded apprehensions of a scarcity, which they had under consideration; they were also deeply engaged in it for the better regulation of their forces, and they had sent up another for continuing the excise, when the governor pleased to return both that and the Indian trade bill, with several proposed amendments, and a notice, "That his majesty's service requiring his presence at Newcastle, he intended to set out for that place on the morrow, or next day after."

To redeem time, therefore, the said amendments were immediately discussed, and upon the question rejected; of which they apprized him in the following brief and sensible manner:

"May it please the Governor,

"The excise now offered the governor for his assent, being free of all objections as to royal instructions, and act of parliament, that has heretofore repeatedly received the royal assent; and reason appearing to the house why the change be proposed by the governor's

amendment, they therefore unanimously adhere to the bill, and desire that it may receive his assent as it now stands.

"The law for regulating trade, being an imitation of the law for the same purpose, found so beneficial by long practice and experience in the province of the Jerseys, the house do also adhere to it; and request the governor would be pleased to reconsider his amendments."

Of this the governor took no notice, but proceeded to Newcastle, as he had before intimated he would; and as the assembly having at last conquered the difficulties raised among themselves, and passed their bill for regulating the officers and soldiers in the militia of the province, adjourned to the 1st of April then next ensuing.

As this adjournment was very short, the members were permitted to have the benefit of it; but when they met again new troubles arose; not to say were prepared for them.

Sir William Johnson's treaty with the Six Nations was laid before them; and they found the governor strongly determined to involve the province in an Indian war with the Delawares and Shawanese; which was very considerable part of the province, from principles of prudence, as well as scruples of conscience, earnestly desired to avoid.

The affair was taken into consideration; and the house appeared to be far from unanimous upon it: some from the papers before them, finding it to believe, that an accommodation might still be effected, for addressing the governor to suspend his purpose for some time longer; and others had influence enough to postpone the debate, and thereby prevent their coming to any conclusion upon the question at all.

The issues of war and peace, they might probably argue, solely in the executive, and consequently the executive alone to be answerable for the measures made of them.

But whatever their arguments were, whatever effect they had within doors, the difference of opinion still remained without. On one hand, some of the people called quakers, residing in the city of Philadelphia, on behalf of themselves and many others, presented petitions to the governor and the house, of exhortations to pursue pacific measures with these savages, and to preserve the province, if possible, from the calamities of an Indian war; and, on the other, the governor informed the house, that a number of people from the back counties had resolved on a meeting, in order to proceed in a body to make some demands of the legislature then sitting; and, after having made a merit of his information, added, "that, by the advice of the council, he should give immediate orders to the provincial and other magistrates, to

their endeavours to prevent the mischiefs which might be so extraordinary a procedure."

The house, however, preserved their equanimity. They were surprised they did express, that, having in all respects demonstrated so much care and concern for the security of the province, any of the people should meddle with mischief against them; but, instead of discovering any fear, they announced the laws of the province against rioters, and accompanied their thanks to the governor for his intelligence, with a request, that he would lay before them what informations he received concerning their views or designs, or wherein they had apprehended themselves to be either neglected or aggrieved: which request he never thought to comply with.

It may be collected, that these arguments were as strenuous for war as the quietists were for peace: and that the government took advantage of this very incident to declare war against the Delawares and Shawanese, and offer rewards for taking prisoners and scalps, which he did immediately thereon. He also gave notice, in form, of the same to the assembly, urging the many and great cruelties his majesty's subjects within the province, in the case; and concluded his message in the following terms:

"But the great part of the sixty thousand pounds is already expended, and what will very soon be consumed in maintaining the troops posted on the frontiers, and other necessary services. I recommend to you, gentlemen, to grant such further supplies, as may be necessary to carry on the war with vigour, upon the success of which the future peace and safety of the inhabitants of this province will very much depend."

The same day he also informed them, "that the Indians, which had long submitted to the bounty of the province (instead of taking part in this war) were on the point of removing with their families (he feared, to discontent, though he knew of no reason,) into the country of the Six Nations: and had demanded of him the necessary conveyance and passports." And he added, "that if they could not be prevailed on to act with the English, which he had directed the interpreter to endeavour, it would be necessary to reward the partizans amongst them (Searoyady and Montour) their satisfaction for their trouble and service, to send the others away well satisfied, and give those that should be good encouragement."

The house, in answer, signified in substance, "that their late supply of sixty thousand pounds had fully enabled the governor, and the commissioners who were joined with him for the disposition of it, to do all that was desired, or necessary to be done; if

great part of the supply, so lately granted, was already expended, and the rest would soon be so, they knew of no remedy; but as the governor was for making the use of credit issued in pursuance of the act, not as yet been laid, levied, as a great part of the money was in hand, and as they were soon to meet again upon the adjournment, then so necessary to their private affairs, having waited long the governor's bills, they could not think it would be of that time to lay an additional load of taxes on the inhabitants, they concluded with an earnest recommendation of the bill for regulating the Indian trade, as a bill of great importance for conciliating the minds of the Indians yet unfixed: their resolutions, and confirming those already in alliance with them, by supplying them with such goods and other things they might have occasion for, on the easiest terms, at the charge and under the inspection of the government." And, in a separate message, the same time, they farther gave him to understand, "that, having seriously deliberated on his message for putting a stop to the exportation of provisions, ever since they had received it, and made a full inquiry into the circumstance of the country, they had to hope that, under the course of God's good providence, no considerable danger or could arise from continuing to leave their ports still open till their next meeting, as also, that they proposed to adjourn till the 24th of the month next ensuing."

The return to this was, that the governor had objection to the proposed time of adjournment; that he thought, with the house, there was no immediate necessity for laying an embargo on provisions: that he should lay before the assembly the affair of the Indians in town, and endeavour to send them away well satisfied, that he expected the house would have made preparations for executing the plan of operations for the ensuing campaign, but they had not, he upon them, that the Indian trade, and excise bills, he should consider them against the next meeting: and lastly, that he thought it proper to mention to the house by their messengers, that although he had had more burdens laid upon him than any of his predecessors the same time, yet he had received less from the house than any of them."

Lastly, the house taking into consideration what the governor had relating to their not having made preparations for executing the plan of operations for the ensuing campaign, resolved, these words, "that as this province has received no assistance from mother country, and we have already expended large sums of money for the raising and supporting a considerable body of men for the defence of our extensive frontier, against

the continued depredations and encroachments of a savage ■■■■ merciless enemy, besides what ■■■■ been expended in maintaining the friendly Indians, French neutrals, and ■■■■ other parties for the king's service, which expenses are likely to be continued for some time; the house are of opinion, that the present circumstances of the province will not now admit of their going into any preparation for executing the aforesaid plan of operations, and that ■■■■ would be not only impracticable, but very ■■■■ prudent, at a time the country ■■■■ greatly distressed by the unjustifiable taking of innumerable servants, and ■■■■ many of our freemen are enlisted and gone away, to send so great a proportion of men as is demanded of us, to so great a distance, and thereby deprive ourselves of their assistance, which we have too much reason to think we shall ■■■■ have occasion for."

"Hence ■■■■ the transactions of April 16th: and, as the reader will observe no notice ■■■■ taken of the governor's remonstrance concerning himself, he will from thence, perhaps, be led to account for his reconvening them ■■■■ some time afterwards as the 10th of May; he being then absent at a place called Hiram's ferry, and having nothing more pressing ■■■■ lay before them, than what is contained in the following abstract of his message to them upon that occasion, to wit.

"That the people of the frontier counties westward having lost great numbers of their fighting men, and the remainder being either driven from their habitations, ■■■■ worn out with fatigue, there was the greatest reason to apprehend, the next attack would produce the entire evacuation of the two next counties, York and Cumberland, that the consideration of this deplorable and dangerous situation of those counties, which the most considerable of their inhabitants had, in the most affecting manner, laid before him, had induced him to call them together, that the best and speediest means might be taken to prevent, if possible, farther desolation; that the law for establishing a voluntary militia had contributed very little, if any thing, to the defence of the frontier, that he had observed it was defective when he passed it, and that it required so much time to carry it into execution, that nothing good ■■■■ to be expected from it; that, though many companies had been formed under it, yet, for want of sufficient power lodged in him to order them to the frontiers, they were, as to that most material service, entirely useless; that he must therefore recommend it to them to form such a militia as might be just, equal, and carried into immediate execution, so as that he might be able ■■■■ draw the strength of the province to such parts ■■■■ stood ■■■■ in need of it; and the whole burden of defending ■■■■ province might ■■■■ fall too heavily

on the few inhabitants ■■■■ circumstances obliged them to remain in ■■■■ back counties, that, as by the latest accounts from Europe, a considerable armament from France was to be expected in America, now to become the seat of war, and ■■■■ the enemy would in such case depend upon being supplied with provisions from the king's colonies, by the intervention of the Dutch, he conceived a general embargo would be ■■■■-ary; and that ■■■■ should be rendered effectual, by some such special law as should be thought necessary by himself and the governors of the neighbouring provinces, which he recommended ■■■■ them to prepare; and that the affairs of the province, and, in particular, the building ■■■■ fort at a place called Shamokin, which ■■■■ of ■■■■ great importance to the province, requiring his personal care and attendance, ■■■■ gave him concern that he could not ■■■■ then ■■■■ Philadelphia, but that they might be assured he would give ■■■■ the despatch imaginable to any bills they might propose, which the secretary ■■■■ to send to him from time to time by express."

To give the more weight to the militia clause, a petition was presented to the house from the officers of the association companies in the city of Philadelphia, complaining of the insufficiency of the present law, and praying that a new one might be framed, in which the defects of the former should be remedied.

The assembly gave the petition a civil but cool reception; and, in their reply to the governor's message, furnished the public with a brief of their sentiments and proceedings ■■■■ the present occasion: to wit

"That being met in pursuance of the governor's call, they were concerned for his absence, as the public business could not be transacted ■■■■ it ought, where the several parties were so far asunder, that as by the joint ■■■■ of himself and the commissioners, for disposing of the sixty thousand pounds, the frontier was now in a better state of defence, than that of any other colony on the continent, the fort being numerous, all strongly garrisoned, and both officers and soldiers ■■■■ reduced to due obedience and discipline, by means of the act of parliament, which, at their last sitting, they had extended to that province, they could not but hope, that the distressed inhabitants of the two counties mentioned, might, by the blessing of God, become more secure in their settlements, and consequently, more easy ■■■■ their minds; and that more especially ■■■■ they understood, there were in the interior counties many formed companies ■■■■ yet unemployed, who ■■■■ dy to enter into the service, and march ■■■■ the frontier, whenever the governor should think ■■■■ call them; and a considerable sum ■■■■ in the hands of the commissioners, whereof the expense might be defrayed; that, ■■■■ they conceived, the marching the ■■■■

the frontier on every alarm, would be less effectual for defence, and much more expensive and burdensome to the people, than their proportion of a standing guard; that, indeed, they little experience of militia in this province, consequently, in framing so a thing as a law to regulate it, their might have its defects; that, however, the governor did not point them out, when he passed the act, and they not occurred to them, they could then say was, that when he should think fit to send down any supplementary amendments, they would take them into their consideration; which he, the governor, might possibly be ready to do by the time to which they stood adjourned, then not far distant, that they therewith sent him a bill for prohibiting the exportation of provisions or warlike stores from this province, which they hoped would meet with his concurrence, being in conformity with the law lately passed at New York; but that as all restrictions made by them would be ineffectual, unless the lower counties (the territory as formerly called) were in like manner restrained: they had deferred the continuance of their law, to such future act as the governor and assembly of those counties should pass for that purpose; that they apprehended a strict compliance with that law would be of great service to the British interest, and therefore earnestly recommended it to the governor, that when passed it might be carried effectually into execution. And, lastly, that the season required the present attendance of many of the members at their plantations, they proposed to re-adjourn themselves to the same time as before, when they hoped the governor would find himself enough at leisure to meet them at Philadelphia.

Thus ended this session of four days, the prohibitory law passed by the governor at Harris's ferry, and when they met again, they received from the secretary two other messages from the same place, designed for their farther amusement in their last sitting, but which arrived half an hour too late; and the other for the present.

According to the former, the governor had received letters from the governors Dinwiddie and Sharpe, giving an account of the miserable condition of their frontier; and the danger they were in from the enemy, who had penetrated so far as Winchester in Virginia; he had, thereupon, redoubled his diligence for the better securing the most exposed part of their own; but he still fearful, that, for a sufficient force to take the field, the garrisons on that side would not be able to keep off the numbers of the enemy, which there the greatest reason to expect would soon appear in parts; that time was to

be in some effectual for their defence."

According to the latter, "all despatch he had been able to make his works brought them such forwardness as permit him, without prejudice to that important part of the public service, be their meeting; he had, however, the satisfaction to tell them, that he had made lodgment in a very secure place upon the river, beyond the Kittatiny hills (the place from whence, it must be recollected, he fired his first beacon to alarm, rather distract, the province); the secretary would lay before them a letter from governor Sharpe, with the extracts of an act of his government for granting forty thousand pounds to his majesty's service; only twenty-five thousand pounds of it conditional (that conditional acts were regular in Maryland though in Pennsylvania) that Pennsylvania and Virginia contributed their reasonable quotas towards the expedition granted for; they must be sensible there would be no peace or safety for them (his old argument) unless these western colonies united their strength making a well-concerted push to dislodge the French from their encroachments, and that no time so favourable as when his majesty's forces and those of the eastern colonies were employed against them to the northward, therefore to be taken into immediate consideration, and he was to be enabled to give governor Sharpe the expected assurance that Pennsylvania would, for its own sake, contribute accordingly."

A complaint from commodore Spry, that he was in great want of seamen for his majesty's ship under his command, and that he expected supply from those colonies, brought up the rear; with a requisition that he might be enabled by bounty otherwise to raise and send him as many as the province could spare, which would be a very reasonable and acceptable service."

In conformity to pressing and plausible message, a money-bill immediately ordered, and progress made therein advice having been received from Charles Hardy and William Johnson, that the Delaware and Shawanese had promised to cease from hostilities, and were disposed to strengthen their alliance friendship, and the governor (Morris) having caused a suspension of to be proclaimed thereon, they contented themselves with assuring him, that he should not find of the necessary support in the prosecution of such measures might tend to bring the good disposition of the said Indian tribes to a happy issue and with recommending it to the commissioners of the sixty thousand pounds act, to concur with the governor in furnishing

such supplies of money as might be necessary thereto." They again put the governor in mind of the trade bill, which he often recommended to him before; and that it might be of great service at that juncture, by bringing such of our Indians as had never been joined with, and desired to be distinguished from, those who committed outrages on the back settlements, under the immediate inspection and care of the government, by supplying their necessities on proper terms, securing their affections, and inducing others to do the same for the same beneficial considerations."

A promise to reconsider it, this drew from him; but, if he resolved to his own price such service to the province, he put them in mind, by a message the next hour. "That, though the trouble and expense of administration had been considerably greater than in any former time, no sums had been granted for his support since their first session; and he therefore desired, they would take this matter into consideration, and make such provision as was agreeable to justice and the practice of former assemblies."

What the governor's case was with respect to revenue, and what the merits of his advice, may be collected from the sheets already before us; so that it will be enough in this place to say, that the assembly could row a deaf ear as well as he; and, that he, having given them to understand in his message concerning Sir Charles Hardy's intelligence, and the suspension of arms, that he had called the assembly of the lower counties to meet him on the 4th of June, in order to render the late embargo permanent and effectual, by prevailing with them to pass a law to the same effect, and that he imagined his absence for three or four days would be no interruption to their proceedings, they adjourned themselves to the 23th.

Before they separated, however, which deserves notice, six members requested leave to resign their seats for certain reasons by them specified in a paper presented to the house at the same time; and it was, after consideration, resolved thereon, that, in the meantime, they continued in the same mind after the adjournment, and delivered the said paper into the hands of the speaker [in proof thereof] their seats should be deemed vacated accordingly. They did continue in the same mind, and delivered the following paper in proof thereof:

"May it please the Speaker of the House,

"A few days since we communicated to the house our inclinations to resign our seats; in which the house appeared disposed to favour us."

"Our repetition of our continuing in those intentions, does proceed from any design of involving the house in unnecessary trouble;

but as many of our constituents seem of opinion, that the present situation of public affairs calls upon us for a military way, which, from a conviction of judgment, after mature deliberation, we comply with; we conclude it most conducive to the peace of our own minds, and the reputation of our religious profession, to persist in our resolutions of resigning our seats, which accordingly now do; and request these reasons may be entered in the minutes of the house."

The speaker hereupon sent order to the secretary, being the proper officer, to be for many re-elections, who thought fit to refuse obedience, the governor being of opinion, that though there was an express provision by law for filling a vacancy occasioned by wilful absence, there was none for a vacancy occasioned by resignation. Upon which, the speaker, by the advice of such members as were then in town, issued his own writs, founded on the law, from whence the governor derived his objection. These writs the sheriffs obeyed, what instances soever they might have been importuned with to the contrary; the freeholders exercised their rights of electing in pursuance of them; the returns were made in the usual form; and the house resolved *non est*, that the members returned had been duly elected.

Thus the breach closed as soon as it was opened; and whatever view the governor had to serve by his opposition, he neither did himself or views any service by it.

His message, introductory to the business of the session, contained a notification of the king's having appointed the earl of Loudon commander-in-chief of all his forces in America, with two regiments of foot, a train of artillery, stores, &c. and commanded him, the governor, to give his lordship and the troops the assistance in his power: particularly to recommend it to them, to appropriate such part of the funds already raised, to be raised, for the public service, as was to be issued as his lordship should direct. As also of another circumstance altogether new in the British constitution; namely, his majesty being enabled by act of parliament to appoint a member of German, Swiss, and Dutch Protestant to be officers of a regiment to be raised and called the Royal American Regiment; as also of another particular recommendation which he enjoined to make to them, that they should of such indentured servants

"This American regiment was to consist of five thousand men; it was to be composed of whatever provisions the colonies could furnish, and, according to the first plan, was to have been commanded by non-commissioned officers, but this plan having been objected to, some abatements were admitted, namely, that the foreign officers should not exceed one-third of the number; that the room should be for some Americans; that the commander should always be an American subject."

should [redacted] the king's service, [redacted] undesignified [redacted] of the funds raised for the public service. And the nature of this review requires, [redacted] the sequel of this message should [redacted] given in the governor's own words, which were as follows, to wit:

"[redacted] majesty has further commanded me to [redacted] and it to you, [redacted] effectual laws for prohibiting [redacted] trade [redacted] commerce with the French, [redacted] prevent their being supplied with provisions; and [redacted] the law lately passed here for [redacted] embargo will, by the expiration of [redacted] for that purpose passed in the lower counties, [redacted] on the seventh of July, I hope you will prepare a proper [redacted] for continuing an embargo, so [redacted] for his majesty's service, and the safety of the colonies, for [redacted] time longer.

"The secretary will lay before you extracts of the secretary of state's letters [redacted] me, relating [redacted] the [redacted] now recommended, and I hope you will without delay enter upon the consideration of them, and comply with his majesty's expectations.

"The money heretofore given for the king's use will be very [redacted] expended, and I shall [redacted] that care be under [redacted] necessity of disbursing the troops raised for the defence of the province, and of destroying or abandoning the several forts erected upon our frontiers: I must therefore desire you will grant such further supplies as the present situation of our affairs require."

To the clause relating to the embargo, the house ordered [redacted] immediate answer to be prepared; in which, having told him what he could not but know before, "that they had already done what [redacted] now required of them, by a law still in force, and which would have [redacted] continued [redacted] August 1. the time limited by the law of New York, provided the three lower counties [redacted] also passed a law conformable thereto," they proceeded in these words:

"As provisions might be exported from this province through those counties not subject to [redacted] laws, and great quantities [redacted] raised there, [redacted] were fully apprized that any restraints we could lay upon our exportations here would by no [redacted] put a stop to the supplying the French with provisions, unless that government prohibited the exportations from thence also; we therefore limited the continuance [redacted] of our act accordingly, and [redacted] must [redacted] the astonishment [redacted] were under, when [redacted] found the governor had enacted a law there invalidating the acts of the other colonies, by limiting the continuance of their act to one month only.

"As [redacted] act prohibits the exportation of provisions [redacted] conformity with the law of New York colony, with which New Jersey, we understand, [redacted] also complied, the governor cannot think [redacted] reasonable, that the colonies of New York, New Jersey, and this province,

[redacted] be deprived of their laws by an [redacted] of the government of [redacted] three lower counties, therefore, as [redacted] act [redacted] passed by the governor himself, [redacted] presume, instead of applying [redacted] us upon [redacted] occasion, he will think it his duty [redacted] the assembly of the three lower counties, [redacted] whom it belongs, [redacted] continue their law to the time limited by the other governments.

"It is well known that Maryland raises great quantities of wheat, pork, and other provisions, and yet, [redacted] informed, their ports have hitherto continued open to the exports of provisions from thence; the governor will therefore judge the necessity of [redacted] intending a prohibition there, without which, we apprehend, the [redacted] of the northern and eastern colonies [redacted] prove ineffectual."

The bill of supply already before the house, [redacted] in the next placed resumed; and to clear the way [redacted] they went, a [redacted] message [redacted] sent to the governor to know, whether he had come to any resolution [redacted] the excise and Indian trade bills to which, he answered, that, [redacted] to the latter, he thought his amendments to it so just and reasonable, that he could not, therefore, recede from them, and as to the former, that he had added a clause by which the money to arise by it, [redacted] to be disposed of in such a manner as the governor [redacted] and commander-in-chief, and [redacted] of his death or absence, the president of the council and the assembly should direct; adding, "this manner of disposing of the public money appears to me most conducive to the general interest, and you will observe by an article in the proprietary instructions to me, which I send you herewith, that I am restrained from passing any bill of that nature without such [redacted] appropriating clause."

And this instruction [redacted] delivered in the terms following, to wit:

"You shall not give your assent to any law for prolonging the present [redacted] laying any other [redacted] or raising any money on the inhabitants of the said province of Pennsylvania, unless there be an enacting clause, that all money [redacted] from the said excise, [redacted] other duties, shall be disposed of only as we, or either of us, exercising the office of governor, or the lieutenant-governor, or, in case of his death or absence, the president of the council, and the house of representatives, for the time being, shall direct; and not otherwise."

Thus the great proprietary secret, so long suspected, so long and so cautiously preserved, and which had operated so mischievously and dangerously, not only to the province of Pennsylvania but [redacted] the provinces adjoining, was [redacted] last acknowledged; and it thereby became undeniable, that, under such a commission, enforced by a penal bond upon the holder [redacted] t, neither the province could be protected, [redacted] king served, [redacted] interest of the [redacted]

munity maintained, unless the freemen parted with their birth-rights, and the special confirmations of them contained in their charter.

And ■■■ equally to be wondered, that any two subjects in the king's dominions, should presume ■■■ exact such concessions from their fellow-subjects ■■■ his majesty himself neither has, or makes any claim to; and that any gentleman should submit ■■■ them on such equally tyrannical and servile terms.

The resolutions of the house hereon were worthy of the occasion, and ■■■ such are equally worthy of having ■■■ place in this work.

Resolved, that it is the opinion of ■■■ house, that the ■■■ proprietary instruction ■■■ the principal, if not the only, obstruction to the passing of several bills offered to the governor by the last assembly for granting money for the king's use.

"That the act for laying an excise ■■■ wine, rum, brandy, and other spirits, passed in the year 1744; and the ■■■ granting five thousand pounds for the king's use, passed the 24th of June, 1746, by which the said act for laying ■■■ excise ■■■ wine, rum, brandy, and other spirits, was continued for ten years next after the first day of June, 1746, have received the royal approbation.

"That acts laying an excise ■■■ spirituous liquors have been found necessary for defraying the charges of government, and have been continued within this province for more than thirty years; and that the governor's ■■■ passing the bill presented to him for continuing ■■■ the excise, upon the terms of all our former acts, repeatedly approved of by the crown, from an apprehension that he is restrained by the said proprietary instruction, is evasive and frivolous, and an infringement of our just rights; and, that, as deputy-governor of this province, he has, ■■■ ought to have, ■■■ powers to give his ■■■ to all such bills ■■■ we have ■■■ undoubted right to offer.

"That the said instruction 'is not calculated to promote the happiness and prosperity of this province, and ■■■ inconsistent with the prerogative of the crown, and the liberties of the people;' and that all proprietary instructions, not warranted by the laws of Great Britain, are illegal and void ■■■ themselves; nevertheless, if the gov ■■■ should apprehend himself bound by such proprietary instructions, they may prove ruinous ■■■ the province, and of dangerous consequence ■■■ British interest in America.

"That the house do adhere ■■■ the bill for continuing the ■■■ for laying ■■■ excise on wine, rum, brandy, and other spirits, as it now stands, without admitting the governor's proposed amendments thereto."

It ■■■ also became apparent to the province, that even the boasted free-gift of the proprietaries of five thousand pounds ■■■ was not to be obtained but ■■■ it could be collected

■■■ of the arrears of their quit-rents; and ■■■ being impracticable ■■■ collect such ■■■ fast enough ■■■ the public demands, the deficiency could no otherwise be ■■■ good ■■■ by ■■■ of assembly ■■■ striking the sum of four thousand pounds, remaining due on the proprietary-order, in ■■■ of credit, to be sunk out of the growing payments as they ■■■ ■■■ This, in short, ■■■ the favour applied for ■■■ their behalf by their receiver-general, who declared, ■■■ the same time, that he ■■■ consulted the governor on this head, who had expressed his readiness to concur with the house in a reasonable ■■■ for that purpose; not directly to the assembly, however, ■■■ this favour applied for; ■■■ a favour to the proprietaries; (that would have been beneath the proprietary dignity;) but by the interposition of the commissioners of the sixty thousand pounds act. The assembly nevertheless gave way to the expedient: the receiver-general had leave ■■■ bring in a bill for the purpose; ■■■ the ■■■ with a different preamble, ■■■ passed ■■■ sent up to the governor. The difference ■■■ this.—In the first, the ■■■ assigned for the bill was to this effect; "whereas the proprietaries have been pleased to make ■■■ free gift of the sum of five thousand pounds towards the public charge, &c. whereof their receiver-general had as yet ■■■ been able to pay but one thousand pounds; ■■■ the end, therefore, that the good intentions of the proprietaries in the said gift may be fully answered, and the public may receive the immediate benefit thereof, be it enacted, &c."—In the second, care was taken to specify, that the said sum was to be applied towards the public charge, and was given in consideration of their [the proprietaries] being exempted from the payment of their taxes towards raising the ■■■ of sixty thousand pounds.

On the ■■■ day that the ■■■ thus sent up, namely, the seventh after their meeting, they also ■■■ up a money-bill, for granting the ■■■ of forty thousand pounds for the king's use, and for striking the said sum in bills of credit, and ■■■ provide a fund for sinking the same; and, upon the receipt of the said bill, the governor ■■■ pleased to say, "That he would give it ■■■ the despatch ■■■ his power, but that he could not ■■■ when the house might expect to know his result thereupon, as he was that day going to Newcastle, in order ■■■ the assembly of the three lower counties."

Notwithstanding which, the two members, ■■■ whom he thus expressed himself, were no sooner withdrawn, than he sent after them another message to the house, signifying, "That by intelligence he ■■■ received from two Indians, two days before, the western Indians were forming themselves into a body in order to attack the province about the time

of harvest, &c." adding, "If upon consideration of this matter, any other [redacted] are necessary for the public safety, you will en-
[redacted] take them."

Thus, harlequin like, he could play contrary parts in given interlude. If a supply was given without delay, the troops were disbanded, the forts destroyed, and the frontier consequently laid open; and yet, with a supply in his hand, he could deliberately go upon another service; at the same time he could also communicate intelligence of additional dangers: yet with the same supply in his hand, he could sometimes find of ability to withstand them.

The assembly, in fact, told him in reply to the message, that ~~as~~ he parted their will, he would find himself sufficiently ~~able~~ ~~to~~ take every measure that might be ~~possible~~.

What is farther remarkable, a merchant of Philadelphia, who had supplied the garrisons of Newfoundland with provisions for six years, and who had a vessel in the port freighted with the same, could not obtain a clearance, the governor and council being unanimously of opinion, that, because of the 'act to prevent exportations, no such clearance could be granted. A member of the _____ who, by order from the navy-contractor at Jamaica had, in like manner, freighted a ship, met with the same difficulty under the _____ pretence. Both made application to the house for relief: and it was not only resolved, that the said act was of the same tenor with that of New York, and never intended in any wise to restrain the exportation of provisions for his majesty's navy and garrisons, nor could it _____ their opinion be _____ understood, except by the most forced construction thereof; but also, that to prevent any ill consequences which might _____ from such interpretation, a bill should be immediately prepared at the table for expressly permitting such exportations.

This bill, when finished, was sent up to the governor, who promised to give it all the despatch in his power; and was followed by another for a longer continuance of the embargo act, with a similar clause of explanation; upon the presenting of which, the governor being asked, by order of the house, whether he had come to any determination upon the former, answered, "that he had read but not considered it." And being farther pressed on the necessities of his service, according to the allegations above specified, said "that, in case the legislature of the three lower counties did not continue the embargo, the same would expire in a few days, and then there would be no necessity of the said supplementary act; and if the embargo of the three lower counties should be continued, he would have the power to permit vessels laden with

" Gentlemen, ■ your instance I called the assembly of the lower counties, and pressed them to continue the prohibition of provisions and warlike stores ■ the ■ limited by the law of New York and Jersey, but they chose only to continue it till the 20th instant, and from thence for so long time ■ the legislature of this province should pass or continue a law for the like purposes, provided the ■ did not exceed the 22d day of October next ■ I am thereby led under the disagreeable necessity of calling you together ■ this busy season, in order to have the embargo continued for the ■ time that it is ■ the province of New York and Jersey; and ■ the ■ of assembly passed for the prohibition of provisions and warlike ■ will ■ with to-morrow, I hope you will immediately ■ upon this matter, ■ give it ■ the despatch the nature of the time requires. The secre-

tary will lay before you a copy of the act of the lower counties, and you will, by proper clauses in the law you may think necessary on this occasion, propose, leave me at liberty to send supplies of such of the king's ships and forces as may be employed in any part of America, and to put the trade of this place, while the embargo lasts, upon the same footing it is in the other bread colonies."

And the very next day the merchants, owners, and masters of vessels then lying in the port, presented a petition to the house, "setting forth the damages and losses they sustained for want of being allowed proper clearances; as also the disadvantages, discouragements, and losses which the whole province would specially and unavoidably be liable to, in case the embargo should be continued for a longer time, than by the late law provided; recommending bonds with sufficient penalties, to be discharged only by the certificates of the British consuls residing in such foreign ports as the several vessels and cargoes were entered for, and consigned to, as the only proper expedient to answer the ends proposed by such laws, without destroying their trade, which the well being of the province depended; and requesting such relief and assistance in the premises as they, in their wisdom, should judge most expedient; no wise doubting their ready and hearty disposition towards the general good and service of their country."

Fruitlessly dismissed, and impertinently rediverted, as the assembly had been, within so short a time, a warm expostulation the least that could be expected upon it; and yet the warmth they showed by no means equal to the provocation they received; but on the contrary, once more moderated and justified, that their worst enemies could not derive the least pretence of reproach from it.

Facts in their favour; and a mere recapitulation of them all that was necessary to show how unworthily they were treated, which will account for the insertion of their address to the governor in this place at large.

"May I please the Governor.

"On the 11th of May, 1756, the legislature of New York passed an act, effectually to restrain the exportation of provisions and warlike stores, from that colony, to be in force for twenty-one days; and after that time, to such time as the legislature of New Jersey, and Pennsylvania, should pass acts for like purposes; provided those acts did not exceed three months from the passing of

that act, which was from the 1st of May to the 1st of August ensuing.

"Sir Charles Hardy having recommended to our governor, that he should lay before the assembly of this province, the necessity of enacting a law of the same tenor within this government; and the house being convinced that such an act would be totally useless, unless the three lower counties of Newcastle, Kent, and Sussex, (not subject to our laws) were included, passed an act, the tenor of May, of the same tenor, nearly in the same words, with the act of New York, to be in force till the 7th of June, and from thence for so long time as the legislature of the colony of New Jersey, and the counties of New castle, Kent, and Sussex, upon Delaware, should respectively pass laws for the like purposes; provided they exceed not the time limited by the law of New York government.

"On the 11th of May, the legislature of New Jersey passed an act, to be in force from the first day of June in the first of August, and from thence for so long time as the legislatures of the colonies of New York and Pennsylvania should respectively pass laws for the like purposes, provided they did not exceed three months from the said first day of August.

"Thus being the state of the laws laying an embargo on the exportation of provisions and warlike stores; first, by the colony of New York on the 4th, then by this government on the 13th, and by New Jersey the 25th of May last; it is most unkind, and give us leave to say, in our opinion, unbecoming the dignity of government, that the governor's last message he should not take the least notice of any law being ever passed by us for laying any embargo within this port, but only mentions his having pressed the assembly of the lower counties 'to continue the prohibition of provisions and warlike stores, to the time limited by the laws of New York and Jersey,' as if no such law ever been passed by himself within this province! what purpose such a conduct towards us is to answer, the governor best knows. But when he proceeds in his said message to propose to us 'to have the embargo continued for the same time that it is in the provinces of New York and Jersey,' we must confess we are entirely ignorant to know what the governor would mean; our present act coming precisely within the governor's recommendation; being made in compliance with the law of New York. If the lower counties have complied with those terms, it is not to be imputed to the assembly of this province, who have fully discharged their part in making the embargo effectual.

"We entreat the governor to consider and reflect on the share he has had in the laws of the lower counties, passed by himself, which

* Boston having little of provision to export besides fish, which was exported by their act, New York having a great market, and the great part of their product, and Virginia and Maryland having had their ports open all the time.

made both there and here of this prodigious gift, the province either to peddling a way, rendered it in a manner useless; else, though they took upon their credit, to the donors in effect of all future claim, by connecting the terms which alone it could be consistently accepted.

What farther remarkable, during the of this interchange of messengers, one from the governor, concerning Indian affairs, sent the assembly, which altogether irreconcilable with that which he had sent them sixteen days before. It will be recollected, that on the 5th of the current month July, the western Indians, in contradiction the advices received from sir Charles Hardy and William Johnson, on the province time of harvest; and now, on the 21st, in conformity those advices, each of the said western Indians had attended the conferences between the Six Nations and the said sir William Johnson, not only laid down the hatchet, but also engaged to follow the example of the said Nations, in asserting us against the French. Nor this all: a number of the Susquehanna Indians, and Teedyuscung king of the Delawares, discovered so good a disposition to return to their alliance and former friendship with us, that nothing wanting but an interview between him (the governor) and them; and a proper provision for the expenses hereof, and the fulfilling such engagements the present exigencies might require.

Such the tidings now imparted, with assurance, that he should therein have a particular regard to the honour and safety of the province.

To the province nothing could be agreeable than such tidings; nor could any be named in which they would have laid their money willingly; but their public stock exhausted; and by the several negatives put upon their bills, they were disabled from raising more; frequently were as much distressed for the of making friends, as before for the means of defending themselves against their enemies.

What sum would sufficient? was the question; the governor being consulted on that head, answered, "That he had made no calculation; but it seemed to him, that about four or five hundred pounds might serve; though expense would the greater, as he should be obliged to have a body of soldiers for his guard;" the commissioners of the sixty pounds act were with; and upon the of all, they of this incident to lay a brief state of their case before governor in any of message; in which having expressed their

satisfaction in the news imparted, they proposed as follows,

"And in this critical juncture, when a happy issue of a treaty with the Indians must so of great advantage to the proprietary interest, we apprehend the present treaty must be, cannot suffer ourselves to doubt their willingness contribute towards the heavy expenses the province groans under for Indian affairs; especially considering the governor has just now refused pass bill for granting forty thousand pounds the king's use, because the proprietary there-in taxed, in common with all the other in this province, for their mutual defence; and has also refused continue excise act, some time since expired; so that the province is greatly indebted, and our only remaining reduced to the lowest extremity.

"Under these circumstances, made application to the commissioners, appointed by the act for granting sixty thousand pounds to the king's use, to know whether any money remained in their hands, which might applied to the present emergency; but we find, that the fifty-five thousand pounds, to be sunk by the provincial tax, expended; that near four thousand (part of the five thousand) pounds, given by the proprietaries, in consideration of their being exempted from their share of that tax, is not paid into the commissioners' hands; and if the whole sum was paid, the debts already contracted for the defence of the province, are nearly equal thereto. Nevertheless, as we apprehend the treaty proposed to be held with the Susquehanna Indians, and the Delaware king Teedyuscung, may be attended with lasting good consequences, we have resolved, that the sum of three hundred pounds, be allowed by this house for that purpose."

The members sent herewith, were also to apprise him, that if it pleasing to him, they should adjourn to the 10th of August; and his

"That he should not engage for the proprietaries' contributing any thing towards the expenses that may attend proposed conference; that as the house had voted three hundred pounds for that purpose, he should Easton Bethlehem till the whole expended, then take his horse and ride away to New York to lord London; that to the of adjournment, he should not whether he was pleased or displeased with it, but leave it entirely with the house to do they pleased."

A compliment from general Shirley province on his being recalled, acknowledging the "repeated instances of their contributing towards the defence of his majesty's just rights and dominions, and to assure them of his

heartly wishes ■■■ their welfare," without one civil thing ■■■ his brother governor, though the letter ■■■ directed to him, ■■■ the only thing remarkable of the ■■■ hitherto omitted; and injuriously, wickedly, and impudently, as the province has been aspersed, ■■■ voucher of that authentic nature can, or ought ■■■ be dispensed with.

On the 18th, according to their adjournment, they met again; and the next day they were honoured with the governor's message; which told them, ■■■ the first place, what they had long told each other before, namely, "that their treasury ■■■ exhausted; that the troops wanted their pay, that a supply ■■■ necessary," &c. The taking and burning of an out-fort on the Juniata, called fort Granville, made ■■■ good terrifying ingredient ■■■ it, the rest was the stuff that he had talked over and over, till the ■■■ weary of hearing it, except that major Rutherford, the commanding officer in that province, of the New Amherst regiment then raising, wanted barracks for one thousand men; and that his recruits being chiefly indentured servants, it would be necessary for the house to make provision for the payment of their masters, for the residue of the time each had to serve, in conformity "to his majesty's instructions."

The next day the house sent up their reply, which was ■■■ follows:

"If it please the Governor,
"The house have repeatedly considered the governor's bills for granting considerable sums to the king's use, to which he has annexed his assent, being restrained by the proprieties, as he says, from passing any bills in which their estate is to be taxed towards its defence. We know ■■■ no equitable way of raising such large sums ■■■ now necessary, but by a general ■■■ all estates real and personal. We have voted another ■■■ of forty thousand pounds, to be raised ■■■ that manner, and ■■■ preparing ■■■ bill to lay before the governor for that purpose. But as we are, and must be still, of opinion that the proprietary estates ought to be taxed ■■■ common with those of their fellow-subjects in all the ■■■ of the king's dominions, for their common defence, we cannot omit ■■■ clause of that kind in our bill, without injustice to the king's other subjects, ourselves, our constituents, and posterity; and ■■■ believe, that ■■■ equal number of men, of any sect, nation, name, or party, among us, will never be chosen to represent this province, who would be of a different sentiment in this particular.

'In the ■■■ time, ■■■ earnestly request the governor would ■■■ his influence with the proprietaries' receiver-general, to induce him ■■■ pay the remaining ■■■ of near three thousand pounds, yet behind of their contribution of five thousand pounds, which by law ■■■ to have been immediately advanced, ■■■

is ■■■ withheld from ■■■ commissioners, to ■■■ injury of the poor soldiers, whose pay ■■■ in arrear for want of that money, the fifty-five thousand pounds ■■■ granted by the said ■■■ of the king's use being expended.

"We are sensibly affected with the distressed state of ■■■ frontier inhabitants; though we apprehend they are ■■■ much better situation than those of the neighbouring provinces, who are equally near the enemy: and we hope they may be rendered still ■■■ secure, by ■■■ vigorous exertion of the force now on foot for their protection, and the annoyance of the enemy.

"The other matters recommended ■■■ by the governor, we will take into consideration, and hope ■■■ may be able to do therein whatever ought ■■■ be expected of us."

Thus ■■■ the last parley between the assembly of Pennsylvania and Mr. Morris, who makes so notable ■■■ figure on their list of governors. Captain Denny has ■■■ ■■■ hand; and therefore he did not think it worth his while to compose a reply, which he might reasonably suppose no body would think worth reading.

Change of Devils, according to the Scots proverb is blithsome!

—Welcome ■■■ or ■■■ ■■■
And farewell ■■■ out sighing —

says Shakspeare

The whole province seemed to feel itself relieved by the alteration of one ■■■ for another. Hope, the universal cozenor, persuaded them to believe, that the good qualities of the ■■■ would qualify the governor. He was received like a deliverer. The officious proprietary mayor and corporation, more than once already mentioned, made a feast for his entertainment, and having invited the assembly ■■■ partake of it, they also were pleased to become forgetful enough to be of the party.

That the said assembly, should congratulate him on his arrival and accession (though the term ■■■ royal one) ■■■ perhaps, no more than a decent and respectful compliment; and that they should augurate from the excellence of his character, that his administration would be excellent, a fair and candid inference. ■■■ that they should find ■■■ hundred pounds at ■■■ in their treasury, ■■■ present him with, as an initiation-fee, may ■■■ matter of surprise ■■■ all readers of their votes alike. Tired they might be of opposition; pleased ■■■ find ■■■ pretence for relenting; but how they should find money where no money ■■■ would be beyond conjecture. The order, therefore, on their treasurer, for that ■■■ could only be considered ■■■ present mark of their good will, and ■■■ obligation on ■■■ house ■■■ provide, ■■■ future money-bill, for ■■■ discharge of that order.

Compliments over, government began.—

in the governor's very first speech, the province was given to understand, "that the French encroachments on the Ohio, which majesty in his declaration of war signed the principal of his entering into a just and necessary war, were within the limits of it, [which the province could never yet be convinced of:] and that therefore it was particularly incumbent on them to exert themselves in the support of such measures as had been, or should be, concerted for carrying on the war with vigor; the of the frontiers too, the devastations, cruelties, and murders committed there, and the horror they excited in him, made a good topic in his hands, the back counties, and the back inhabitants had done in his predecessor's; nay, those very back inhabitants are brought forward in the next paragraph: and, what is more, left naked and defenceless to a savage and merciless enemy by an immediate disbanding of the provincial troops, which, as before, was represented as unavoidable. Unless fresh supplies were quickly raised for their support."

In short, if Mr. Morris had made the speech himself, he could have carried on the thread of government with more consistency; for, as to the douceur at parting contained in these words, "let unanimity and despatch prevail in your councils; and be assured I will deny you nothing that I can grant, consistent with my duty, his majesty, and the rights of the proprietaries," it amounted to more than this, do as my masters the proprietaries would have you, and I will say nothing to the contrary!

It is not to be conceived, that men of such long experience in the affairs of the province (so the members of assembly were characterized by their governor) could be one moment at a loss for the meaning of his speech, or what was to be apprehended in consequence of it.

They had voted a supply of forty thousand pounds before Mr. Morris was superseded. They did not sit, as usual, in the afternoon of the day the speech was delivered; and though in the next day's deliberation they dropt the former bill, and ordered in another with a blank for the sum, they adjourned the day following, without doing any business at all; nay, though quickened the next following with a message accompanied with an extract of a letter from

lord Loudon, as also several other letters and papers (among the latter, one containing a letter from colonel Armstrong, concerning some secret which was to be kept a secret still) they demurred both that and three days more, before they came to any farther resolution; and then they agreed upon an address by way of answer to his speech, in which, after a paragraph or two of compliment, they dryly gave him to understand, 1st, "that from very many of their frontier which he extended that it in a manner covered the three lower counties, Maryland, and New Jersey, and consisted of dispersed settlements, the horrors he talked of could not be prevented; 2dly, that as it was in a better state of defence than that of any of the neighbouring colonies equally in the enemy, they would not but hope the inhabitants would be equally safe, and 3dly, that a great unanimity did prevail in their councils, they should, as far as lay in their power, consistent with their just rights, enable the governor to afford the people the continuance of that protection they so much stood in need of," &c.

They also accompanied the said address with the following message; which was obviously of the nature of a postscript, calculated to contain the business purposely omitted in the letter it belonged to.

"May it please the Governor,

"As soon as we received and considered the governor's speech, as I before we received his message with the letter from lord Loudon we resolved to give a sum of money for his majesty's service; demonstrating, by that readiness, that we are not inexcusable in our duty to the best of kings, nor of the necessity of enabling the governor at this critical conjunction to protect the people committed to his care."

"As former grants of this kind have been long delayed, or rendered ineffectual, by means of latent proprietary instructions, not communicated to us till we had spent much time in vain in forming our bills, we would now humbly request the governor to lay before us full copies of such of his instructions as relate to money-bills of any kind, with the preambles or other parts that contain the reasons of such instructions; that we may, if possible, avoid all occasions of delay in affairs so important, and that our judgments may be informed of the equity and necessity of rules to which a conformity is required."

"From the governor's candour, and sincere desire to facilitate and expedite, by every means in his power, what is necessary to the public welfare, as well as from the reasonableness of the thing in itself, we have no doubt but he will favour us in granting this request."

The assembly was civil; the governor was artful. As he would not grant all that was

* The assembly had really been within the bounds of the grant of the proprietors, that would not have supported it. It was more particularly incommode on the assembly of Pennsylvania, than on any of the neighbouring governments, equally affected and incommode by its measures. For the assembly was as yet uninhabited; the property of the soil was in the proprietors; who, if it could be recovered from the French, would demand and receive a substantial price for it of the people. They might as justly be told, that the expense of his law was the property of Maryland, as that the right to land was that frontier, was particularly incumbent on them to defend.

asked, he resolved to be as forward as possible in performing as much as he designed. Thus, on the very day their request was made, he laid the instructions in question before them; being the eleventh, twelfth, twenty-first articles of the proprietary instructions.

Of these, the first regards the interest money arising from the provincial treasury of credit, and the money to be raised by excise; and having by advance asserted a joint intention in the said proprietaries, and the house of representatives, to have it applied for the public service, proceeds to ground upon that joint intention a title to equal power over it; then forbids the governor to give his assent to any bill or resolution of assembly for emitting, re-emitting, or continuing any paper-currency, unless the whole of the interest money arising therefrom should be disposed of only to the very purposes to be specified in such act, or where that could not be conveniently done, by the joint concurrence of governor and assembly at the time being. And the prohibition is also extended to all excise laws, except the disposition of the money to be raised by them is also appropriated in the same manner.

The second, having admitted that a reasonable and moderate quantity of paper-money tended greatly to the benefit of the province, as well as to the trade of Great Britain, and that the dangers of depreciation arose only from an excessive great quantity, authorizes and empowers the governor discretionally, on proper inquiry made, and proper assurance obtained of the real utility of such a measure, to make an addition to the present currency of forty thousand pounds more; provided strict regard be had to all the limitations specified in the instruction foregoing; and also, that effectual provision was taken that all rents and quit-rents, due to the said proprietaries, should be always paid according to the rate of exchange at the times of payment between the cities of Philadelphia and London, by some sufficient provision in the very act itself, or by a separate act, to be done in the 12th of the present king, when the farther sum of eleven thousand hundred and ten pounds five shillings was issued.

And the third related to the proprietary estate; concerning which he asserted and maintained, 1st, that the said estate never had been taxed; 2dly, that, over and above such exemption, several laws had been passed, giving to the said proprietary a support by duties and other impositions; 3dly, that, since the expiration of those laws, no aid had been given to the proprietaries as such; notwithstanding which, they had, on several occasions, shown their regard to the public service, by voluntarily and cheerfully expending several considerable sums of their own money for the aid thereof, although no provincial tax

had been laid upon the people within their time, till the last year; that, having any reason to suspect, the assembly would demand as much from the ancient proprietaries to pretend, by any means of theirs, to charge them with the burden of any taxes, they had therefore given the preceding governor no particular instructions on that head; 4thly, that the assembly, taking occasion of the troubles of America, had represented them in a very untrue light, as unwilling to assist the public by contributing to the defence of the country, though no application had been made either of them for that purpose; 5thly, that the assembly had prepared a bill up for raising fifty thousand pounds for the king's use, by a tax of twelve cents per pound, and twenty shillings per head, a bill of a very unjust and extraordinary nature; inasmuch as the estates of the proprietaries were not excepted, but, on the contrary, the proprietaries acquainted themselves with, and procure the amount of their estate in quit-rents, and in the same manner as other estates assessed and taxed in the respective counties, by virtue of the said bill; the said twelve cents laid on the whole value or fee-simple of every estate, which, supposing the same computed at twenty-five years' purchase only, was a quarter part more than the whole gross rent, without allowing for any charges or repairs; it was contrary to the royal charter, which required land-tax bills, as well as other bills, to be consonant to reason, the laws, statutes, and rights of the kingdom, &c. not repugnant to them; as so heavy a tax was not necessary to be laid for the raising such a sum, which might have been raised by other ways; calculated for the purpose of putting it in the power of persons wholly chosen by the people to tax their estates up to their full value, and to assess other persons, by taxing them so lightly, as only to make up what might afterwards be wanting to complete the said sum; as the taxing of unimproved lands, yielding no rent or profit, the highly unreasonable, and contrary both to the practice of Great Britain, and the laws thereof; as, according to the inquiries they could make, neither the quit-rents reserved to the crown, nor the proprietaries of any other colonies, had ever been taxed towards the raising any supplies granted to those colonies; quit-rents in general being indeed so small, little land-tax would be payable of them, even in Great Britain, where land-taxes are annual; and the grantees and owners of the lands and plantations, out of which such very small acknowledgments were reserved to them, did in case of a land-tax, pay the value of such their said farms; 6thly, that though their deputy governor did refuse his assent to the assembly's refusing to exempt

their estates, they were ■ far from desiring not to contribute to the defence and support of his majesty's rights and dominions, that immediately on the ■ notice ■ them of Braddock's defeat, they sent over an order ■ their receiver-general to pay out of the ■ of their quit-rents the ■ of five thousand pounds, as a free gift towards the defence of the province, desiring all disputes might cease, and that the governor and assembly would join together in measures to oppose the common enemy; 7thly. that the said ■ of five thousand pounds, ■ by them given, was, according to their belief, twenty times more than the tax upon ■ their estates there, if truly and proportionably rated, according ■ the value of all other estates, would have amounted to, for raising ■ of fifty thousand pounds; 8thly. that another bill of the same unjust nature, for raising fifty thousand pounds, by ■ tax of six pence in the pound on the clear value of ■ estates (therein excepted in consideration of the said free-gift) their then lieutenant-governor not being provided with particular instructions with respect to such bill, and because the money was then requisite for the defence of the province, gave his assent to; 9thly. that they, tendering as they ought to do, the then exigency of affairs, and the necessity of ■ supply, did not make any application to his majesty for his royal disallowance of the said act, ■ at any other time they should have done; 10thly, that the assessors appointed by the assembly in ■ the said bills were few in number, chosen by the people only, and not one by them; and though incapable of knowing the true value of two several estates, so to be rated and taxed, were made final and absolute judges without appeal; 11thly, that by laying so great a ■ to raise a small ■ sum, the said ■ it in their power ■ commit great irregularities, in taxing ■ estates ■ their utmost value, and easing others, which would be unequal and unjust, and was ■ much the more to be feared, because they, the proprietaries, had been informed, that in assessing the ordinary county levies on the like plan, many persons, instead of being rated ■ their ■ worth, had not been rated at a fiftieth part of it.

All these several articles (here stated in their full force) ■ introduced with a Whereas ■ the head of each, and all implicated in one embarrassed unmeasurable period; ■ which is ticked the instruction itself, with the following preamble:

"And whereas the said assembly appear to us to have been inclined ■ only to load ■ burden our estates with taxes by their authority, directly contrary to former usage, but even to charge the same disproportionately, ■ in an unequal manner, in order to ease the ■ tates of others, which is a measure we are by

no means willing ■ consent to; and ■ the present invasion of his majesty's American dominions, may make it necessary to raise further supplies for his ■ in ■ said province. ■ assembly may hereafter propose and offer bills or acts of assembly, to lay additional taxes on real ■ there: you are, therefore, hereby required and directed, not to give your assent to any ■ or act of assembly of that sort, unless the ■ be made to continue for one single year only, and ■ longer," &c.

Here follows a variety of prescriptions and prohibitions: ■ plausible; ■ artifice, and all serving as ■ shoeing-horn to the great one of all, the ■ of the proprietary quit-rents, which ■ be rendered ■ express as possible.

That, however, they may not appear altogether intractable, one concession is made towards the conclusion, which ■ worth more perhaps than they supposed; as it contains a ■ acknowledgment that, in equity, they ought to be taxed like the ■ of their fellow-subjects, and yet less than them they would have it understood; such estates of theirs, as come within that description, not being like to produce such ■ deemed to be ■ a provincial object; and the introductory part of the paragraph, as may be collected from the famous contest betwixt them and the assembly concerning Indian expenses, justly drawing the whole into suspicion.

This is the paragraph. *Valut quantum valere potest.*

"And whereas we are, and always have been, most ready and willing to bear a just proportion along with our tenants in any necessary tax for the defence of the said province, which shall be equally laid upon the lands of the inhabitants, and also upon any of our ■ lands which ■ actually let out on leases, either for lives or years, as leasing estates ■ degree like to those of which the inhabitants are possessed; therefore you are at liberty to give your consent to any reasonable bill ■ set for that purpose, provided the tax to be paid for such our last mentioned estates, shall be payable by the tenants and occupiers, who shall deduct the same ■ of the rents payable by them to us."

It is remarkable, that through the whole, the language is such ■ could indeed become none but ■ absolute proprietary; all dictatorial; all in chief, ■ lord paramount; as if there was no king in Israel, nor any interest worthy consideration, but the proprietary interest; ■ if there ■ no occasion for royal instructions, or as if it ■ impossible any such should interfere with theirs; and ■ if the provincial legislature was ■ of wax to ■ twisted into what shape they pleased.

Such ■ these instructions; and as to their effect in the house, ■ such ■ naturally to be expected; they ■ contro-

derstood, he farther chose to express himself as follows; ■ wit, "that he had had several applications made to ■ from the frontier, requesting ■ aid of the legislature in their present distressed circumstances; ■ the eyes of ■ neighbouring colonies ■ upon them; ■ above all, that the nation of England were ■ expectation of their granting the ■ ary supplies for the king's service; ■ he was sorry to find the first bill offered to ■ be much as he could not pass; and that he hoped they would so conduct themselves, as that he might make ■ favourable representation of their conduct ■ ■ majesty."

The house, ■ the other hand, having ■ these objections into consideration, appointed ■ committee ■ collect the ■ of the house in ■ them, which upon the report ■ approved, and sent up to the governor by the committee of conference.

And ■ so far as regards the objections above stated, can ■ given ■ no ■ so apposite as their own.

"1. ■ house chose, ■ time, ■ ■ ■ bill rather than ■ land-tax bill, to avoid any dispute about taxing the proprietary estate, and because, as it was a mode of raising money they ■ used to and understood, the bill might more speedily be formed and brought ■ effect, so as to answer the present pressing emergency; and being in the same form with a number of preceding excise bills, that had been passed by former governors, gone through the offices at home, ■ ■ ■ ceived the royal assent; they well hoped it might meet with ■ objections.

"The last time it passed, the term was ten years. No inconvenience ■ from the length of that term. Could ■ have sunk the ■ we wanted by the excise in that term, we should ■ desire to extend it. ■ expect it will ■ yield more in twenty years ■ the sixty thousand pounds granted. The act of parliament made for the eastern colonies, is not in force here. ■ the parliament thought it fit that this province should be govern ■ by ■ act, they would ■ have excluded Pennsylvania out of the bill, ■ they actually did. Governor Hamilton had formerly offered ■ extend the excise to any term, during which ■ would load it with three thousand ■ pounds per ■, granted ■ ■ crown. From ■ hence we concluded the term of twenty years would not be objected to, sixty thousand pounds being granted.

"Sixty taxes or excises on other consumptions might possibly be laid, but we have no experience of them; they will require a time of more leisure to be well considered, and laws for collecting them properly formed, so as to be effectual, and not injurious to our ■. If this war continues, we may soon want them all; and the succeeding assembly may take those matters in hand immediately

after their meeting, so as to have such ■ ■ ■ ready before the money now granted is expended; though we still think a well proportioned tax on property, ■ ■ ■ equal and just way of raising money.

"If every ■ who received ■ of credit in payment, ■ ■ ■ obliged ■ keep them in his hands till the end of twenty years, ■ ■ ■ sure the length of the term would occasion a proportionable depreciation. ■ ■ ■ they being a legal tender in all payments, and the ■ ■ ■ able ■ exchange them immediately ■ their value, it ■ ■ length of term, but excess of quantity, that ■ ■ occasion their depreciation; and that quantity ■ by this bill yearly to diminish. Besides, the eighty thousand pounds ■ have ■ ■ loan, is ■ ■ sink in the next six years, which will greatly lessen ■ currency, ■ consequently lessen the danger of the depreciation.

"If the quantity should prove too great, which ■ believe it will not, ■ subsequent act, laying excise or duty on other commodities, increasing the duty per gallon, raising it ■ from private consumption, ■ obtaining money by any other ■ for the public service, ■ be made, and the money applied to the more speedy sinking this sixty thousand pounds.

"2. There will probably ■ little or none plus left to the disposition of the assembly. People now leave the province faster than they come into it. The importation of Germans ■ pretty much over. Many ■ from us to settle where land is cheaper. The danger attending frontier settlements will probably be long remembered, even after ■ peace may be restored. And if our inhabitants diminish, the excise will be lessened instead of being increased. At its best, ■ produces, *communibus annis*, not ■ ■ ■ than three thousand pounds per ■.

"■ former excise laws the assembly have had the disposition of the whole. They preserved the public credit; paid all public debts punctually every year; and have not abused the trust reposed ■ them.

"The instruction is ■ a royal but proprietary instruction, ■ ■ ■ arbitrary government ■ ■ ■ us, to distress the assembly and people, and put it out of their power ■ support their complaints ■ home. It would, ■ ■ ■ deprive ■ of a just right and privilege, enjoyed from the first settlement ■ of the country.

"3. Lord London is a ■ ■ ■ distinguished by ■ great trust the ■ ■ ■ hath placed in him. We have likewise received ■ high character of his integrity ■ ■ ■ uprightness, which induces ■ to confide ■ ■ ■ of ■ (which heaven prevent) may, ■ ■ ■ several removes, give ■ a successor ■ ■ ■ to us. If it should be ■ ■ ■ ■ ■ convenient ■ ■ ■ ■ ■ ex-

pended, the governor and assembly can ■ any time, by a little act, subject the remainder to the order of his successor, the commander-in-chief for the time being.

"4. It is true, there ■ a fund appropriated to sink the notes issued for the grant to ■ Crown-point expedition. That fund in a great measure fails by the loss of one whole county to the enemy, and the abandoning considerable part of other counties, where lands mortgaged to the loan-office ■ situated. The whole sum was appropriated to the king's service. And if those notes had not been issued, that assistance could not have been given, ■ our affairs were then circumstanced. They cannot be redeemed in due time by that fund, without adding to the distresses of the people, already too great; and the public credit ought to be kept up, as it may be waited on ■ future emergency. Besides, those notes bear interest, and ■ this time the province is less able than ever to pay interest. We should now save money by all means ■ our power."

"10. The fund appropriated for sinking the five thousand pounds, given for the Canada expedition, was broke in upon by the late extraordinary demands for public money. Five thousand pounds ■ given in provisions to general Braddock, and near four thousand pounds more to cut a road for the king's ■ vice at the instance of that general: besides large sums for the maintenance of Indians, extraordinary and expensive treaties, &c. ■ expected or foreseen when the fund was laid. It may therefore fall short, and the outstanding debts not pay the whole; but, however, the public credit ought to be supported: and the new land excise is the most proper fund to supply deficiencies ■ the old."

"The house cannot be supposed insensible of the distresses of their fellow-subjects on the frontiers. Several of the members reside there. They hoped they had ■ this ■ provide for those people the means of speedy assistance, and avoided all objections. They see none now of importance enough, in their opinion, to prevent the passage of the bill.—They grant the money freely to the king's use, and cannot admit of amendments to a money-bill: they therefore persuade themselves, that the governor will consider the present circumstances of the province, and the consequences of dispiriting the inhabitants, by depriving them at this time of their privileges, without which they would ■ the country scarce worth defending; and that he will not suffer ■ proprietary instruction, new, unjust, and unseasonable, to deprive his majesty of a grant ■ large, ■ freely given, and so necessary for his service: and for ■ preservation of the proprietary estate, as well as the securing the lives and fortunes of the inhabitants, who promised themselves great

happiness, in being placed immediately under his care and protection."

The kings of Great Britain have a negative ■ laws as well ■ the deputy-governors of Pennsylvania; but then they use it ■ rarely as possible; and when they do, they rather demand than refuse; but the deputy-governor of Pennsylvania, having no such management ■ observe, thought the peremptory style the best; and so sent down the secretary with a verbal message, which is entered in the minutes of the province in these words.

"Sir, the governor returns the bill, entitled, 'an act for striking the ■ of sixty thousand pounds, in bills of credit, and giving the ■ to the king's use, and for providing a fund to sink the bills so to be emitted, by laying an excise upon wine, rum, brandy, and other spirits.' And his honour commands me to acquaint the house, that he will not give his ■ to it; and, there being no person to judge between the governor and the house ■ these parts, he will immediately transmit to his majesty his reasons for ■ doing."

The remainder of that day (the 15th) as it may be surmised, ■ wasted in a vain discussion of the difficulties they were involved in; for the house broke up ■ without coming to any resolution. The next was a blank likewise; no business was done; but, on the third, having resumed the consideration of the governor's objections to their bill, the committees report thereupon, the governor's verbal message refusing his assent to the said bill, and the proprietaries' instructions, prescribing to the representatives of the freeborn of the province, the modes of their raising money for the king's service, they come to the following resolutions, to wit:

"That the said proprietary instructions are arbitrary and unjust, ■ infraction of our charter, a total subversion of our constitution, and a manifest violation of ■ rights, as freeborn subjects of England.

"That the bill for granting sixty thousand pounds to the king's use, to which the governor ■ has been pleased to refuse his assent, contains nothing ■ inconsistent with our duty to the crown, or the proprietary rights, and is agreeable to laws which have been hitherto enacted within this province, and received the royal approbation.

"That the right of granting supplies to the crown is in the assembly alone, as an ■ part of our constitution, and the limitation of ■ such grants ■ to the manner, manner, measure, and time, ■ only ■ them.

"That it is the opinion of this house, that the many frivolous objections, which our governors have been advised from time to time, to make to our money-bills, ■ calculated with a view to embarrass and perplex the representatives of the people, to prevent their doing

purposely to unhinge the present system; and, by means of insinuations, menaces, aspersions, innuendoes, and every other unfair practice whatsoever, either misled or wheedled the inhabitants out of the privileges they were born to; nay, they have actually avowed this perfidious purpose, by avowing the dispensing pamphlets in which the said privileges are insolently, wickedly, and foolishly pronounced repugnant to government, the sources of confusion; and such having answered the great end of an expeditious settlement, which alone they granted, might resume pleasure, as incompatible with the dictatorial power they now challenge, and would

being the truth, the plain truth, and nothing but the truth, there is no need to the of the public; which, proper information, are always sure to fall in the right place.

The parties before them are the two proprietaries of a province and the province itself. And who or what are these proprietaries? the province, unseizable subjects and unsufficient lords. At home, gentlemen, 'tis true, but gentlemen very private, that in the herd of gentry they are hardly to be found; not in court; not in office; not in parliament

And which is of consequence to the community,—whether their private estate shall be taxed, or the province shall be saved?

Whether private gentlemen, in virtue of their absolute proprietorship, convert so many fellow-subjects, born free as themselves, into vassals? or, whether so noble and useful a province, shall for ever re-

main an asylum for all that wish to remain as free as the inhabitants of it have hitherto made a shift to preserve themselves?

Rich. Jackson has said

What part the offices here at home have in this controversy, will be time enough to specify when 'tis over, and appeals respectfully made argue a presumption, right will be done.

But one circumstance more, therefore, remains to be in behalf of this persecuted province, which is a testimonial of Modore Spury, contained in the following tracts from two of his letters to one Mr. Lovel, a gentleman of Philadelphia, and by him communicated to the speaker of the assembly, is wit:

“August 3, 1758

“’Tis impossible to estimate how much I am obliged to the gentlemen of Pennsylvania for their ready concurrence in supplying his majesty's ships in North America with such a number of seamen, at their government's expense; and I must entreat you to make my most grateful acknowledgments to your speaker, and the of the gentlemen concerned in it.”

“August 7, 1758.

“I have joined Mr. Holmes, and we are now under sail, with a fair wind, for Louisburg. Last night a ship luckily arrived with twenty-nine seamen more from the people of your good province; God bless them! I ever gratefully remember and acknowledge it. I have the seamen all on board my own ship, except four that are sick at the hospital.”

APPENDIX;

SUNDRY ORIGINAL PAPERS.

RELATIVE TO THE SEVERAL POINTS OF CONTROVERSY BETWEEN THE GOVERNORS AND ASSEMBLIES OF PENNSYLVANIA.

To the Honourable Thomas Penn and Richard Penn proprietors of the province of Pennsylvania, &c.

The representation of the General Assembly of the said Province, met at Philadelphia, the 11th day of the sixth month, 1761.

MY LORDS, WE ARE THE PROPRIETARIES.—The first settlers of this province unanimously concurred with your worthy father, to lay the foundation of their settlements in doing justice to the native Indians, by coming among them as friends, upon an equitable purchase only. This soon appeared to be the best and safest way to begin the infant settlement, by the veneration and love it procured from those people, who kindly supplied the wants of many, then destitute of the necessaries of life: and, as the settlements increased, retired to make room for their new guests, still preserving that esteem and veneration which had been so strongly impressed upon their minds. By this voluntary retreat, all were satisfied, there was room enough for all; and the good faith so carefully kept with those who were nearest, gave the Indian a favourable opinion of us, which continuing to us on the same principles of justice hath enjoin'd to us; they entered freely into our alliance; they became the guards of our frontiers against the French, and French Indians; by obliging them to observe a neutrality towards us as we experienced during the course of the last war; and we have reason to think we share largely in their affections. This beneficial friendship hath not been procur'd nor continu'd without a very great expense to the people of this province, especially for some years past, wherein we find the assemblies opened their hands liberally to all the purposes of peace, those who could best, God, preserve our distant settlements against the depredations of an active and powerful enemy; without strictly inquiring at that time, how far the people alone ought to bear the burden of those expenses, as that burden became yearly more and more heavy, the assemblies were naturally led to request the assistance of the proprietaries, and we hoped an assembly so apparently reasonable might have had our approbation. We are therefore much concerned to receive an answer so different from our expectations, in which the proprietaries are pleas'd to say, "that

they do not conceive themselves under any obligation to contribute to Indian or any other public expenses, even though taxes were laid on the people for the charges of government, but as there is not one shilling levied on the people for that service, there is the less reason for asking any thing of them. Notwithstanding which, they have charged themselves with paying to the interpreter, not more than could be due to him, any treatise for land, and are at this time at the expense of maintaining a son, with a tutor, in the Indian country, to learn their language and customs for the service of the province, as well as of sundry other charges on Indian affairs. That they have been considerable expense for the service of the province, both in England and here, that they purchase the land from the Indians, and pay them for it; and that they are under no greater obligation to contribute to the public charges than any other chief governor of any of the other colonies."

Upon which we beg leave respectfully to represent to our proprietaries, that the procuring a good understanding with the Indians, particularly advances the interest and value of the proprietary more than that of any other estate in the province, as it gives the proprietaries an opportunity of purchasing at a low price, and selling at high rates, great tracts of land on the frontiers which would otherwise be impracticable. That therefore, though they may conceive themselves under no obligation by law, they are under the much stronger obligations of natural equity and justice, to contribute to the service of these Indians, treaties and presents, by which that good understanding, so beneficial to them, is maintained. That although formal treaties have not been in this province during some years past, for the support of the proprietaries' lieutenant-governor and defraying the charges of Indian treaties, yet the issue of our paper-money is a virtual tax on the people, as it arises out of, and is paid by, their labour, and our excise is a real tax, yielding about three thousand pounds per annum, which is principally expended in those services, besides the tax of licences of various kinds, amounting to considerable sums yearly, which have been appropriated wholly to the support of the governor. That the assemblies of this province have always paid the accounts of our Indian interpreter for his public services to his full satisfaction; and we believe future assemblies will not fail to do, in that respect, what may reasonably be expected from them,

when his son shall be thought qualified to succeed. Nor do we doubt their discharging all just debts, for expenses properly chargeable to the province, whether made here or in England, when the accounts are exhibited. We are nevertheless thankful to our proprietaries for their care in our affairs, and their endeavours to provide a well qualified successor to our present interpreter, as such a one may be of service to the public, as well as to the private interests of their family.

We would further entreat our proprietaries to consider, that their great estate not lying in Britain, is happily exempt from the burdens borne by their fellow-subjects there, and cannot, by any law of ours, now being, be taxed here. That therefore, as they are not obliged, on account of that estate, to bear any part of the charge of any war the British nation may be involved in, they may with us more freely contribute to the expense of preserving peace, especially the borders of their own lands, as the value of those lands much depends upon it.

We beg leave further to observe to our proprietaries, that the act forbidding all others to purchase lands of the natives, establishes a monopoly solely in their favour: that therefore they ought to bear the whole charge of treaties with the Indians for land only, as they reap the whole benefit. And that their paying for land (bought, as we conceive, much the cheaper for the province) presents accompanying those treaties) which, and they again to their advantage, is not a satisfactory reason why they should not bear a part of the charge of such other treaties, as tend to the common welfare and peace of the province.

Upon the whole, since the proprietaries' interests are so constantly intermixed, more or less, with those of the province, in all treaties with our Indian allies: and since it appears that the proprietaries themselves already pay more than their share, and the people (who have disbursed near five thousand pounds within these four years, on those occasions) think they pay abundantly too much; we apprehend that the surest way to prevent dissatisfaction on all sides, will be, to fix a certain proportion of the charge of all future provincial treaties with the Indians, to be paid by the proprietaries and province respectively: and this, we hope, they will on further consideration agree to, not only as it is in itself an equitable proposal, but as it may tend to preserve that union and harmony between the proprietaries and people, so evidently advantageous to both.—Signed, by order of the house,

ISAAC NORRIS, *Speaker.*

The Proprietaries' answer to the foregoing representation of the House of Representatives. Laid before the house, May 23, 1758.

GENTLEMEN,

1. The true and real interest of the people whom you represent is, as it ought to be, the principal object of our concern; we shall on all occasions, show them that we have it constantly in view; we will use our utmost endeavours to procure it, at the expense of our own private fortunes, whenever it appears to us necessary; and, in considering the matter of your representation, shall endeavour to act such a part as would be thought

just, by persons wholly disinterested, both with regard to us and them.

2. That the representatives of the people are not so disinterested, seems most certain; wherefore, supposing they saw this matter in a light very different from that in which it appears to us, and that they were not actuated by any inclination on the one hand to oppose our interest, or on the other to influence the weaker part of the electors by appearing zealous for theirs (which we trust and hope is the case) yet they continue to differ in sentiments from them, the more of the desired assistance, without being liable to any imputation of neglecting the interest of the province in the opinion of the world.

3. After we had ordered our governor to give you the answer, which he did, to your former application, we had no reason to expect a repetition of the application directly. It is as you might well suppose, we had considered the matter before we had returned your first answer, and the repeating the request could only produce the repeating the error; the occasion for which does not appear to us. It is possible, that one purpose may be, in order to show, more publicly, this difference in opinion between us and yourselves: and if that was over intended, it will be convenient that we should this in a clear light (although it may make an answer longer than we could wish) that the true state of the matter may appear.

4. We did not speak our own sentiments only when we before said, we were under no greater obligation to contribute to the public charge than any chief governor of another colony: that was the opinion of the lords of trade, when, upon an application made to the king, by many considerable inhabitants of the province, that he would be pleased to give some orders for their defence; the counsel, employed by the agent of the house of representatives, insisted, that, if any such preparations were necessary, the proprietaries ought to be at the expense of them; but their lordships declared it their opinion, that we were not obliged to be at any expense of that nature, more than any other governor-in-chief of the king's colonies.

5. We are sensible that our honoured father, in the first settlement of the province, and all time after, was strictly to do justice to the Indians, and purchased land from them before it was settled; but, we believe, always at his own charge; at least we do not find a single instance of a purchase having been made at the expense of the people. What share they had in such purchases, we are at a loss to know, other than the benefits and convenience which arose from the mutual exchange of friendly offices with the natives.

6. Had the necessary public charges amounted to more than the revenue of the province, and a general tax been laid on the people to defray the same, there might then have been some colour to desire that we should contribute; but as no such tax has, for very many years, been or need to be laid, and the charge of government amounts to little more than the one half of the common and ordinary revenue, the pressing thus unreasonably for our contribution, appears, we conceive, as an attempt to induce the weakest of the people to imagine yourselves to have an uncommon regard to their interests, and to be therefore most proper persons to be continued as their representatives;

and the matters which might the rather induce us to think, the solemn repetition of request, and treating it as if it was a matter of great value consequence; the time of making your representation, just election; and printing the report, and most extraordinary resolutions, which were foundation of such your representation. your votes, long your address could, by any possibility, come to our hands; which are such matters as could not escape our observation, and which would persuade us, that it was intended as an address to the people, rather than to us.

7. Wherefore, on occasion, it is necessary that we inform people, through your selves, our representatives, that as, by the constitution, our consent is necessary to their laws, at the same time that they have an undoubted right such as are necessary for the defence and real service of country; so it will tend better to several things which must be transacted us, for their representatives show regard to our interest: for, considering the rank which the crown has been pleased to give us in Pennsylvania, we shall expect from the people's representatives, on all occasions, a treatment suitable thereto; and that, whilst we desire to govern province according to law only, they should be as careful to support our interests, as we shall always be to support theirs.

8. We are truly concerned, that you lay us under the necessity of acquainting the public the of the revenue of the province; you have in part, done it already, by acknowledging the amount of the excise to be three thousand pounds a year. The interest of the paper money, we conceive, is more than that sum, which makes the common revenue of the province above six thousand pounds a year; the annual expense of government for years (including Indian charges) is more than that sum: the interest paid by people who, no doubt, find greater advantage in use of the money than the interest they pay for it, otherwise they would not be so sollicitous to be admitted to borrow as they always have been. That interest money therefore cannot, with any propriety, be called a tax laid on the province, as a burden on the inhabitants. The excise itself is not a general tax, to which the inhabitants must contribute, as is paid by such only who buy wine and spirituous liquors, under certain quantities; so that many people pay of that tax. Of all this revenue, four hundred pounds a year has, on average, twenty years past, (and great part of that time during war) been expended in presents to the Indians, and charges on their account; which we cannot conceive to be a large sum, in proportion to the of the province, for so great and important a service as that of keeping the united nations of Indians in the interest of Great Britain; we believe every disinterested person will think the sum very small, and, from the manner of its being raised, not at all burdensome to the people; besides which, had not half that money been expended on these accounts, it is most certain all the same excise would have been paid.

9. The whole sum paid, in twenty years, for Indian services, is not more than, on a common computation, our has paid, in the same time, for duties and here, for the support of his majesty's government; and which we choose

to mention, in answer to that part of your representation, wherein you, unadvisedly, publish to the world, that our estate in America is exempted from the burdens borne by our fellow-subjects in Great Britain; such might much properly have been avoided; at the same time that we show you, that we do pay all other taxes here, that on land only excepted, we must advise you to be very careful, not to put people here in mind of that single exemption. Several proposals have been made for laying on North America, and it is most easy to foresee that the self-same act of parliament that shall lay them on our, will also lay them on your estates, and on those of your constituents.

10. We cannot allow that you have always paid your interpreter satisfaction, because we know we have charged ourselves with gratifications to him, when the assembly has refused to pay him what he thought services deserved; and we make no doubt he remember such instances: however, with respect to any expense of that sort, and many others here, we entered into them without any expectation of being repaid, and should think far beneath us to the account of them to the house of representatives, as your agent, employed by yourselves might do for the expenses incurred by him. What might reasonably expect, is a thankful acceptance of our endeavours to serve the public; and if you do not think proper to make even that return, we shall, nevertheless, be fully satisfied with the consciousness of having rendered the province all the services in our power.

11. We do not conceive that any act of assembly does, or establish, what you call a monopoly in us for the purchase of lands; we derive no right or property from any such law. It is under the king's royal charter that we have the sole right to make such purchases; and it is under that same charter, that every settler has a right through us, to the estate he possesses in the province. The itself, which you to allude to, acknowledges this right to be granted to us by the charter, and is only declaratory thereof to people, advertising them of a certain truth, they are liable according to the laws of Great Britain, to penalties for contravening such right.

12. Your assertion, that treaties for land made at a less expense us, on account of provincial presents being given at the same time, does not appear to us to be founded on fact; the last purchase made on no other account, but purely to save the province the expense of making other present to some Indians who came down after the time that the principal deputation received the presents intended for whole, and on their return back; and the land was bought very dear on that account. Other treaties for land have been made when provincial presents have not been given; and we do not, or ever did, desire, that the inhabitants should bear any part of the expense of Indians who came down solely at our request to consent to the sale of lands, unless they stay on other public business also; and whenever they have come down on both accounts we are sensible the expense has been divided in a manner very favourable to the public.

13. We are far from desiring to avoid contributing to any public expense, which it is reasonable we should bear a part of, although our estate is not, by law, liable to be taxed. As we already

have been, ■ we doubt ■ we always shall be, at a far greater expense in attending the affairs of the province, than our estate could be taxed at, if all the ■ in ■ province were rated to the public charges, which would be the only fair way of establishing a proportion. If we were willing to ■ ■ ■ any such matter, the value of our estate, and of the ■ of all the inhabitants, ought ■ be considered, and ■ whole expense proportionably laid upon the whole value; in which case you would find; that the expense which ■ voluntarily submit to, out of affection to the inhabitants, is much more than such our proportion so laid would ■ ■ to; besides ■ general expenses, the first of us sent cannon at his own charge, to the amount of above four hundred pounds sterling, for ■ defence of ■ city of Philadelphia, neglected by a late ■ of representatives; which alone, is such a sum as the proportion of a tax on our estate would not in many years amount to. And as this is the case, we are not disposed to enter into any agreement with ■ house of representatives for payment of any particular proportion of Indian, ■ other public expenses, but shall leave it to them (to whom it of right belongs) to provide for such expenses, as they shall judge necessary for the public service.

14. As you desire to appear willing, on your parts, to ease your constituents of a small part of the Indian expense, by throwing it upon us, we shall, on our part, and hereby do recommend it to you, to give them a real and far greater relief, by taking off a large share of that only tax which is borne by them. As the general expense amounts to little more than three thousand ■ pounds a year, we conceive it may very well be provided for out

just soon to receive) ■ consent to an increase of your paper-currency, this would ease the inhabitants of about fifteen hundred pounds a year, which would be ■ by many of them, when they would ■ be sensible of the trifle you ■ we should contribute to the public expenses. We have directed the governor to consent to such a law when you shall think fit to present it to him.

15. As we ■ ever in the first place endeavour to promote the real interests of the good people of Pennsylvania, ■ make no doubt of preserving an union and harmony ■ ■ and then, unless men of warm ■ uneasy spirits should ■ happily procure themselves to be elected for representatives, and should for the supporting their own private views, or interests, influence their brethren, otherwise honest and ■ designing, to espouse their cause; in such case, indeed, disputes may arise, wherein we shall engage with the utmost reluctance; but even then, as we shall make ■ general good ■ rule of our actions, we shall, on all such occasions, ■ they should happen, steadily, and without wavering, pursue ■ ■ most likely to conduce to that good end.

■ The representatives being annually chosen, we are aware that we are ■ writing now to the same persons who ■ the representation to us; the persons most forward to push on a measure which, from the answer, we directed our governor to give to the former application he was desired to make to us, must be supposed disagreeable) may not now be in the house, but may be succeeded by more prudent persons, returned ■ ■ places, who would be careful not to press a matter

too far, in which ■ rights of ■ people are not really concerned; however, the ■ we give must be to the representation ■ us. And we desire, in any matter of the like nature, that the house will be satisfied with ■ an answer as the governor may have orders to give on our behalf.

THOMAS PENN.
RICHARD PENN.

Report ■ ■ Proprietaries' answer, &c.

■ obedience ■ ■ order of the house, your committee have ■ the representation ■ by a former assembly to the proprietaries, concerning Indian affairs, with their answer delivered to this house; and since all further application to the proprietaries on the subject of that representation ■ now forbidden, and that ■ ■ require ■ their answer should be put on the minutes of assembly, we are of opinion that the representation not hitherto made public, should accompany it, with such of the following remarks made ■ each paragraph of the said answer as the house shall think proper.

1. On the first paragraph of the answer, we shall just observe, that the declaration it contains is a noble one, and worthy of the rank our proprietaries hold among us; we only wish that in the present case they had thought fit to give a proof of the sincerity with which it is made, such as would have been satisfactory to others, since our assemblies are esteemed interested judges.

2. The insinuation in the second paragraph, as if the assembly were actuated by an inclination to oppose the proprietary interests, we look upon to be injurious; and as groundless as the other supposition, that the members might have in view their future election, of which we shall take further notice when we come to the sixth paragraph, where it is again repeated. No instance can be given of that assembly's opposing, or attempting to oppose, the proprietary interest. It rather appears that they thought they ■ consulting those interests in ■ very point in question. If it be consistent with the proprietary interest to have a good understanding with the people; since the representation expressly proposed a method of preventing misunderstandings for the future.

3. In the third paragraph, the representation is treated as a mere repetition of a former application, and therefore improper, as "repeating the request could only produce the repeating the answer;" but the representation appears to your committee to contain, not only a repetition of the request, but new reasons in support of it, and answers to such as had been given for refusing it. And such a repetition of an application we think justifiable in all cases; except where we can be sure that the first thoughts of the persons applied to, ■ infallibly right; or if wrong, that they are incapable of hearing reason.

4. With regard to the opinion said to be declared by the lords of trade, "■ our proprietaries were no more obliged to contribute ■ public charge, ■ any other governor-in-chief of the king's colonies;" your committee presume to suppose their lordships could only mean, that as governor-in-chief the proprietaries were not obliged by law, and not, that as proprietaries they were not obliged in equity. The latter is the point at present in dispute between the proprietaries and people of Pennsylvania, though ■ this paragraph evaded

The assembly mention no other obligation such as in their opinion arises from justice; they humbly submit reasons to the proprietaries' consideration, and from their equity only, they hope a compliance with the request. The position understood as the proprietaries would understand it, as well held good among the governors of the colonies; for should the wealthiest inhabitant say, he ought to pay no more towards public charges than any other inhabitant, would right, considering merely an inhabitant; but a possessor of property, he would be wrong; and therefore laws are made, obliging such as would not otherwise just, to pay in proportion their sub-

5. The paragraph intended to combat an assertion, that purchases from the Indians made with the people's money. As we find no such assertion in the representation, we do not think necessary at present to inquire how far, or in what instances, the people have had a share directly or indirectly in any such purchases. The representation only intimates, that the house conceived, treaties for the purchase of land made on more reasonable terms to the proprietaries for the provincial presents accompanying such treaties: and that this was an additional reason why the proprietaries should bear a proportionable part. At least, of the expense of such presents: since, besides their share of "the common benefits and conveniences, which arise from the mutual exchange of friendly offices with the Indians," they reap a particular advantage to themselves, and that a very considerable one. This reason we apprehend is not answered in the present paragraph; it is only evaded, by changing the state of the question. A subtlety, in our opinion, unworthy the dignity of the proprietaries and chief governors of a province.

6 On the sixth paragraph we would observe, that the request to the proprietaries, that they would be pleased to bear a part of Indian expenses, founded on the supposed equity of the case; and that they would consent to settle the proportion to be paid by them, proposed as a means of preventing dissatisfactions between them and the people. To these points, this paragraph only answers, that the people are able enough to pay these expenses without the assistance of the proprietaries. This likewise seems to be starting a question, and one that is the present purpose; for though it were true that the people are able to pay, it does not follow that they should pay unjustly, nor is it likely that they will be pleased and satisfied with so doing, for such a reason. The proprietaries are likewise able to pay, they have revenue enough, but they do not think find a sufficient reason even to pay a part; why then should it be thought sufficient to induce us to pay the whole? the charge contained in this paragraph, "that the application was only an attempt to induce the weakest of the people to imagine the house had an uncommon regard to their interests, and were therefore the most proper persons to be continued their representatives at the ensuing election;" your committee think an absolute mistake, and unsupported by the least degree of probability. For there had not been for some years, nor was there expected to be, nor has there since been, any contest at elections between the proprietary and popular interests; nor if there had, would it

been necessary to take such measures, the proprietaries having, of late years, no formidable share of the people's love and esteem. Nor was the supposed address first made to the people; for the representation has never yet been published; nor the votes containing the same published till after the election. Nor is the situation of an assembly-man here so advantageous, as to make it worth his while to use artifice for procuring a re-election; for when the smallness of the allowance, the expense of living, the he is absent from his affairs, and other inconveniences are considered, suppose he can be a gainer by serving the public in that

7. But whether assembly-men may or may not expect any gainful advantages from that station, we chief governors informing us in pretty plain terms, in the seventh paragraph, that they themselves are not without such expectations from theirs: they tell us, "their interest is necessary to our laws, and that it will tend the better to facilitate the matters which must be transacted with them, for the representatives regard to their interest." That is, as we understand it, though the proprietaries have a deputy here supported by the province, who is or ought to be fully empowered to pass all laws necessary for the service of the country, yet, before we can obtain such laws, we facilitate their passage by paying money for the proprietaries, which they ought to pay, or in some other shape make it their particular interest to pass them. We hope, however, that if this practice has ever been begun, it never be continued in this province; and that since, as this very paragraph allows, we have an undoubted right to such laws, we shall be always able to obtain them from the goodness of our own verriens, without going to market for them to a subject.

Yet, however easy it may be to understand that part of this paragraph which relates to the proprietaries' interest, your committee are at a loss to conceive why, in the other part of it, the people are to be acquainted, "that the house been pleased to give the proprietaries a rank, and that they expect from the representatives a treatment suitable thereto." We find on perusing the representation in question, that it contains any treatment unsuitable to their rank. The resolve of the house was, that prevent dissatisfaction sides, they should be requested, in the most reasonable and respectful manner, agree upon a proportion of Indian charges to be paid by them and the province according to justice; and it may be submitted to the judgment of impartial persons, whether the representation drawn in pursuance of the resolve, was both reasonable in itself, and respectful in the manner. It was not, the proprietaries represent it, an address to the public, not to day public. It is a private application to themselves, transmitted through the hands of the governor. Their true (which they will always find to consist in just, equitable, and generous aims, and in securing the affections of their people) consulted in it; and one proposed to obtain that end. As to rank, the proprietaries may remember, that the crown has likewise been pleased to give the province a rank; a rank which they hold, not by hereditary descent, but as they are the voluntary choice of a free people, undrilled, and even unsold.

cited. But they are sensible that true respect is not necessarily connected with rank, and that it is only from a course of action suitable to that rank they can hope to obtain it.

8. Your committee are quite surprised that the proprietaries are pleased to express in the eighth paragraph, on their being, as they are under a necessity of acquainting the public with the state of the province: if the state of that revenue had ever been a secret; when it is known, and the proprietaries themselves know, that the public accounts are yearly settled, stated, printed, and published by assembly, and have been so for these twenty years past. Whatever private the proprietaries may have to make of their revenue, we know of none to make of the revenue of the province, nor has it ever been attempted. Their following observations, concerning the nature of our taxes, and the distinction between general and particular taxes, seem to your committee so just and accurate as might be expected; for we cannot conceive that the willingness of people to subject themselves to the payment of interest or excise, by taking money on loan, or consuming spirituous liquors, makes either the one or the other less a tax. The manner of laying a tax, the easy method of levying it, and the benefits arising from the disposition of it, may all tend to induce people to pay it willingly; yet it is still a tax. And indeed all taxes ought, upon the whole, to produce greater good to a people, than the money kept in their pockets could do: in such case, taxes are burdens; but otherwise they are not. Taxes, seemingly particular, are also more general than they are often supposed to be: the labouring man lives on the materials of his subsistence, and he generally finds means to get more for his labour.

After estimating our whole present revenue, as if it had been the same for twenty years past, and would certainly continue, though the proprietaries know it depends on temporary acts expiring, the renewal of which is at best dubious, they conclude that four hundred pounds a year for Indian expenses is a small sum, and that there is no necessity of being frugal, on this account, of the public money. This four hundred a year is the sum that they find has been paid on an average for twenty years past, and they take no notice of its being a growing charge, and that for the four last years the representation it amounted to near twelve hundred a year, which we conceive disinterested persons will think a very large sum, and although the same excise might have been raised, if not half that money had been expended, it does not seem to us to follow, that the proprietaries ought to have paid their just proportion of it. If the sum be small, their proportion of it has been smaller; and the money so saved might have been applied to other more beneficial uses to the public; or have remained ready in the treasury for any emergency.

On the eighth paragraph your committee will only observe, that the people of Pennsylvania do likewise pay duties and excise for the support of his majesty's government; and other taxes, which, considering their ability, are perhaps proportionably equal to those paid by the proprietary family, or any other subjects in England. We say indeed as much as an American colony can well bear, and we hope and believe the justice of a Brit-

ish parliament will never burden us with more. The proprietaries' exemption has been published till now at their own instance. It was made use of as a private motive to themselves only in the representation.

On inquiry, we have to believe that the interpreter's bill of charge against the province, have always been allowed and paid; and where his articles have contained articles for his services, he has been asked what would satisfy him, and the same has been allowed. We suppose the instances alluded to, wherein the assembly did not fully satisfy him, must have been such as the proprietaries were concerned in by the purchase of lands, and a part might accordingly be left for them. We believe our assemblies always have been, and we hope always will be, ready to acknowledge gratefully the services rendered by the public by the proprietaries, and not merely to acknowledge them, but to make adequate reparation.

11. Whether the monopoly of lands, in favour of the proprietary, established by royal grant, or by act of assembly, by both, your committee do not think it material at this time to dispute, since the reasoning in the representation remains the same, viz. that those in whose favour such monopoly is erected, ought at least to bear a part of the expense necessary to them the full benefit of it.

12. In the twelfth paragraph, three things appear somewhat extraordinary to your committee. 1. That the proprietaries should deny that taxes for land are made at less expense on account of provincial presents accompanying them, which we think any disinterested judge would at least allow to be probable. 2. That they say the last purchase made is no account, but purely to save the province the expense of a present; as if they had no occasion to purchase more land of the Indians, or found no advantage in it. 3. That to prove such purchases were not the cheaper on account of provincial presents accompanying them, they should give an instance in which, they themselves say, the purchase is the dearer for such presents. Purchases are dearer to the proprietaries when no provincial presents accompany them, does not this clearly confirm the justice of the assembly, that they are the cheaper when there are such presents, and does it not prove what the proprietaries deny?

13. It appears by their thirteenth paragraph, that the proprietaries think the part they voluntarily submit to bear, and expect always to bear, of public expenses, greater than their proportion equitably laid, would be to. If this be so, and they are, as they say, "far from desiring to avoid contributing to any public expense, which it is reasonable they should bear a part of, although their estate is by law liable to be taxed;" your committee are at a loss to conceive why they should refuse, "to enter into any agreement for the payment of any particular proportion of Indian or other public expenses," when such agreement might save them money, and is proposed to prevent dissatisfactions, and to preserve union and harmony between them and the people, unless it be to show their contempt of such union and harmony, and how much they value the people's regard.

The charge on former assemblies, that they neglected the defence of the proprietaries' city,

your committee can & but think unkind, when it is known ■ the world, that they gave many thousand pound- during the war to the king's use, ■ paying near three thousand pounds at one time, to make good the damages done ■ the mas- ■ servants, by the irregular and oppressive proceeding ■ of the proprietaries' lieutenant: and ■ providing cannon to defend the city, was ■ neglect, ■ other considerations set forth at large in the printed proceedings of those times, need less now to be repeated. At the same time it may be remembered, that though the defence of the proprietaries' city, as they are pleased to ■ it, by batteries of ■ more their interest (we will ■ say duty) than any other person's whatsoever, and they now represent it as ■ thing ■ necessary, yet they themselves really neglected and ■ discouraged it; while some private gentlemen gave ■ nearly equal ■ that they mention ■ many contributed vastly more, considering their circumstances, by which ■ those batteries were not only ■ played in season, but the defence of both town and country in that way provided for; whereas this boasted assistance of ■ hundred pounds worth of cannon, was sent like Venetian succours, after the wars were over. Yet we doubt not, but the proprietary who ■ them has long since had the thanks of those who received them, though we cannot learn that they ever were favoured with any from him, for what they did and expended in defence of his share of the province property.

11. The fourteenth paragraph of the proprietaries' answer seems calculated merely for the same design with which they change the representation, viz ■ the weaker part of the people. If they are really disposed ■ favour the drinkers of spirituous liquors, they may do it without a law by instructing their lieutenants to abate half the license fees, which would enable the retailers to sell proportionably cheaper; ■ to refuse licenses to more than half the present number of public-houses, which might prevent the ruin of many families, and ■ great increase of blindness, drunkenness and other immoralities among us.

15. In ■ to the good resolutions expressed by the proprietaries in their fifteenth section, your committee hope that future, ■ well as past assemblies, will likewise endeavour to make the public good the rule of their actions, and upon all occasions consult the true interest and honour of the proprietary family, whatever may be the sentiments or conduct of any of ■ particular branches. To this end, we think the honest and free remarks contained in this report, may be more conducive than a thousand flattering addresses. And we hope, th ■ when the proprietaries shall think fit to reconsider this matter, they will be persuaded, that agreeing ■ an equitable proportion of expense will be a good means of taking away one handle of dissension from ■ men of warm uneasy spirits, if such should ever unhappily procure themselves to be elected."

16. Yet if the proprietaries are really desirous of preserving an union and harmony between themselves and this people, we cannot but be surprised ■ paragraph, whereby they endeavour to cut off the assembly's access to them, in cases where the ■ received from ■ deputies, may not be thought agreeable to the public good. No king of England, as we can

her, has ever taken ■ himself such state, as to refuse personal applications ■ the means of ■ subjects, where the ■ of a grievance could not be obtained of his officers. Even rulers, sophists, and other eastern absolute monarchs, will, it is said, sometimes ■ whole days to hear the complaints and petitions of their very ■ and are the proprietaries of Penney Ivania become too great to be addressed by the representatives of the freemen of their province? if they ■ be reasoned with, because they have given instructions, nor their deputy because ■ have received them; our meetings and deliberations are henceforth useless; ■ have only ■ know their will, and to obey.

To conclude, if ■ province must be ■ more than ■ thousand pounds a year expense, to support a proprietary's deputy, who ■ not be at liberty to ■ ■ judgment in passing laws ■ is intimated ■ in ■ fourteenth section ■ answer ■ have been considering) but the ■ sent ■ be obtained from chief governors, ■ three thousand miles distance, often ignorant or misinformed in our affairs, and who will not be applied to or reasoned with when they have given instructions, we ■ but ■ those colonies that are under the immediate ■ of the ■ is a much more eligible situation: and ■ sincere regard for the memory of ■ first proprietary, most make ■ apprehend for his children, that if they follow the advice of Raboboa's counsellors, they will, like him, absolutely lose—at least the affections of their people. A loss, which however they affect to despise, will be found of more consequence to them than they seem at present to be aware of

■ which ■ humbly submitted to the correction of the house, by, &c.

September 11, 1733.

A message from governor Morris ■ the assembly, August 12, 1755.

GENTLEMEN,—When I amended and ■ down to you the bill for raising fifty thousand pounds for the king's use, I expected you would have returned ■ ■ with the amendments, and informed ■ which of them you agreed to, this being the ■ and ordinary method in such cases; but you departed from this, and desired to know whether I ■ restrained by the proprietaries from taxing their estate, and the ■ for my opinion, as to that measure; and though this application ■ unparliamentary, and I believe unprecedented, yet upon ■ occasion I indulged you therein, and gave my ■ in the mildest terms, on which, however, ■ have been pleased to treat both the proprietaries and myself in a very unbecoming manner.

As you have returned ■ the ■ without the amendments, and in your message that accompanied it, offer no reasons against any of them but such as relate to taxing the proprietary estate, I conclude you have agreed to the others; I shall therefore consider the several parts of your message, and make such observations ■ and ■ over to it, as I think it merits.

Having told you that I had no power by my commission to hurt or incumber ■ proprietary estate, you take occasion ■ your answer to play ■ the words hurt and incumber, ■ having

viewed them in different lights, tell me, "that your bill is intended to free the proprietary estate from hart and incumbrance, by removing the French, and that you are as much bound not to hurt the incumber the estates of your constituents, as I am with respect to the proprietary estate;" and having shown, you think, that the proviso in my commission does prohibit me the present case; you then proceed to the clause itself, and after producing a very good opinion of a former council, judge, and secretary, as to a particular saving in the late proprietary commission, you very roundly pronounce that proviso to be a nullity, and not at all binding on me.

You give me leave to differ from you in opinion, as the words in that clause, which, notwithstanding what you have said have the same plain and determinate meaning they had before; every tax, in my mind, being an incumbrance upon an estate, from which it cannot be cleared but by the payment of a certain sum of money; and I being expressly restrained by my commission from consenting to any act that may incumber the proprietary estate. Every unprejudiced person will clearly, that my powers do not extend to the present, and that if I acceded to your opinion, I should be guilty of a manifest breach of trust.

As to the validity of prohibitory clauses in the proprietary commissions, I am fortunate enough to comprehend the force of your reasonings upon this head, which are drawn from the fourth section of the royal charter; for though by that charter power is given to the proprietaries, their deputies, and lieutenants, to make laws, yet it does not alter the relation which by law subsists between a principal and his deputy, the intention of the charter in that particular, being no other than to empower Mr. PENN., and his heirs, to administer the government by his and their lieutenant or deputy, which being a judicial office, he could not otherwise have done; and so far in the charter, by its general tenor, from making the deputy equal to, or independent of, the principal, that it makes the proprietaries alone civilly answerable for what is done in the province, whether by themselves or their lieutenants, which would be unjust if the lieutenant by the charter was equal in power, independent of, and uncontrollable by, a person that appoints, and is answerable for his behaviour. Though I allow the opinion produced to be good, as to the point then under consideration, yet it is not applicable to cases, which your arguments, without any foundation, suppose; and in the present one there is a wide difference, obvious to every one who considers them both with the least degree of attention; because that saving was even reserving a power to the proprietary in his own person, to repeal a law which he by his lieutenant had consented to; whereas, in the present case, the restriction amounts to nothing more than a reasonable prohibition upon their governors, such, from passing laws to injure their estates.

I cannot help observing, that you formerly used these same arguments against the validity of royal instructions, and using them now to destroy the of proprietary prohibitions, you would, it should seem, be willing that the lieutenant-governor should be independent of every body but yourself.

You say, that the same proviso restrains me from letting or selling the proprietary lands; and yet I propose to give away six or seven hundred thousand

acres upon the present occasion; and seem vastly surprised, that I should think myself restrained from incumbering the proprietary lands by act of assembly, and yet at liberty to give them away; for if, say you, the grant of lands, contrary to such prohibition, would be valid, why not the passing the bill for a tax? And this you call a question you cannot solve. It is something very extraordinary, that the representative body of Pennsylvania should know so little of the affairs of the province, as never to have been informed, that the governor grants the proprietary lands under a certain power of attorney, regularly proved and recorded, a commission of property. That this power was formerly vested in private persons; but for some years past, has been given to the governors; and being the foundation of property, cannot be unknown to any least acquainted with the circumstances of the province. And so ask a question or two in my turn, how could you think that the lands in the province granted under the powers of a commission that expressly prohibits the granting of any? or that the people would be so weak as to give money for lands, and take titles under such a defective power? as to the proposal itself, it was made with a good intention; and as I am accountable to the proprietaries for my conduct under that commission of property, you may be assured I did make it without proper power to carry it into execution; and had you raised money for an expedition to the westward, and for encouraging there, I should then have made an offer of lands by proclamation, letting the adventurers know, that they were to have the choice of the lands in preference to all others, with every thing else that could reduce the offer to a certainty, which there was no necessity of doing in a message to you, barely mentioning the thing, and recommending to you to grant an aid to those that should become the French were removed.

But whatever comes from the proprietaries, however just, however favourable, must be wrong and accordingly you are determined to represent in that light a proposal generous in itself, and intended to promote the public service and safety, which may serve to show the temper of mind you are in, but can answer no good purpose. You say, lands equally good may be had in Virginia for two shillings sterling quit-rent, and to be paid in fifteen years; it may be so, but how does it appear that they are equally good? It is plain they are not equally convenient, because of a greater distance from a market. The quit-rent in Virginia, I suppose, was the same formerly that it is now, and yet very great numbers have chosen to purchase lands in this province of the proprietaries, at the rate of fifteen pounds a shilling per cent, and of private men at a much higher price, and in both cases under the quit-rent of four shillings and two pence sterling, when they might have had them in Virginia for much less: and the proposal ought not to be considered by comparing it with other provinces, but with the that lands have, a number of years past, been in this province; of them lately in the new purchase, within a few miles of the Allegheny mountains, and others very remote, without any road of communication with this city, which is not the case as to the lands proposed to be given, there being a very good wagon road thither; and, notwithstanding what you have upon this

head, I am convinced, that if you had enabled me, in conjunction with the neighbouring governments, to have sent a body of troops into the country, an offer of lands, upon the terms above-mentioned, would have had very good effects, and would have induced many to have gone and become settlers there, that would otherwise thought doing either, and by that means have formed a barrier for the protection and security of the province; and therefore I cannot but be astonished, that you should have taken so much pains to depreciate it.

And now having effectually removed in your judgment my greatest objection to passing your bill, you proceed to consider my reasons in their order. And to the first, that governors, from the nature of their offices, are exempt from the payment of taxes — You take a very nice distinction between the proprietary as owner of land, and the proprietary as chief governor, and say, "you do not tax him as governor, but as a land-holder, and fellow-subject;" though this is a distinction that has no existence in law or reason, yet I shall for the present admit it, and consider it accordingly. Have the proprietaries a right to vote in the election of representatives as land-holders? surely not, being hereditary governors of the province, and having a voice in the legislature by their own particular representative, the governor. How then come you by a right to tax them as fellow-subjects and land-holders seeing they had no voice in choosing you, nor were entitled to any, though owners of land in every county? From the very principles therefore of the English constitution, you have no right to tax them as freeholders or fellow-subjects, you call them; if, therefore, you tax them at all, it must be as proprietaries, and chief governors, which is the only capacity by which they are connected with, or related to, the inhabitants of this province; and under them in that capacity, you derive the power of acting as an assembly. You cannot therefore, without inverting the order of things, have a power over those from whom you and many one else in the province derive all the power they have. They hold the government and soil of this province under the same grant, and the grant to both is centered in their persons, and cannot be separated or divided without destroying their authority. It may be very true, as you say, "that the proprietaries do govern you;" but that is owing to any want of legal authority in them, from another cause that I need not mention here.

The support, as you call it, that is paid by the province — a lieutenant-governor, no other than the fees — officer, and as such are due to any one that administers the government, and are not, what you would insinuate, given to the lieutenant for doing the duty of the principal: the chief of them are public-house licenses, which were originally granted by charter, by any concession of the people (though you from time to time have taken it for granted to be so) and in favour to them, former governors took much larger sums for the service, moderate fees have been consented to be fixed by law, as considerations for the business done, not as sufficient for the support of government; all the fees and perquisites whereof do not amount, *communibus annis*, to more than a hundred pounds.

As to the land-tax acts of parliament you refer to, they may be as you say with respect to the crown's free-farm rents. But I do not conceive they

amount to a proof that the king pays tax, all taxes whatever being paid to him; and there seems to me an inconsistency in supposing he can both pay and receive. I take the clause you mention to have no other meaning than to appropriate part of the revenues of the crown to one public use, which were before appropriated to another, I must observe to you, that the king can have no private estate, but from the dignity of his office holds his lands in right of the crown. And another reason why a poundage collected upon the crown's free-farm rents, may be, that land tax should not fall heavier upon the other lands, the same hundreds or districts, as the quotas of each were long ago settled — they now stand in the king's books, and cannot, without confusion be altered upon the crown's acquiring lands in any of them.

And upon this you break out into a lofty exclamation, that "this is not the first instance by many in which proprietaries and governors of petty colonies have assumed to themselves greater powers, privileges, immunities, and prerogatives, than were ever claimed by their royal master on the imperial throne of all his extensive dominions." I must acknowledge, gentlemen, that these are sounding words: but what instances among the many can you give, of that assuming behaviour in your present proprietaries? have they ever claimed any rights or prerogatives not granted to them by the royal charter, or reserved by that of their father under which you sit? can you lay to their charge during the course of a long administration over you, one act of injustice or severity? have they even exercised all those powers which by the royal charter they might legally do, and to which this charter requires the people to be obedient? on the contrary, have they not given up to the people many things they had a right to insist on, and indulged them in every thing that they judged for their benefit? how just is it therefore, gentlemen, to them of assuming powers and prerogatives greater than their royal master? would you turn your eyes towards your own conduct, and apply some of those significant words to yourselves, you would find them much more applicable than they are to the proprietaries. The charter under which you act, gives you the powers and privileges of an assembly, according to the rights of the free-born subjects of England, and is as usual in any of the king's plantations in America. This, gentlemen, is the foundation of your powers, which, by the royal charter, are to be consonant to the laws and constitution of England, instead of confining yourselves to the which your wise ancestors thought fully sufficient to answer the ends of good government, and secure the happiness of the people, you have taken upon you great and mighty powers, dispensed with positive law, by the strength of your own orders, claim a right to dispose of all public money, and of keeping your proceedings a secret from the crown, with many others unknown to an English constitution, and never heard of in the other plantations in America. Who therefore can be so justly accused as yourselves of assuming unwarrantable powers, greater than ever were claimed by a British house of parliament, or to use your own words, "by your royal master on the imperial throne of all his extensive dominions," who pretends to no power but what the constitution gives him, and disclaims a right of dispensing with laws.

To these encroachments on the constitution,

you give the sacred name of privilege, and under the mask of zeal for the public, conceal your own schemes, pretending they are all for the benefit of the people, when they can answer no purpose but to increase your own power, and endanger the just rights that the people enjoy under the royal and proprietary charters, by making it necessary for his majesty and a British parliament to interfere their authority to the province. The people have no way effectually to secure themselves in the enjoyment of their liberty, as strictly adhering to the constitution established by charter, making that the foundation and standard of their proceedings, and discountenancing every deviation from it.

The second and third reasons given by me, and to them being deduced from the law for raising county and levies, I shall consider them together.

I do not see why the proprietary estate in each county is not benefited in common with other estates, and by the same means. The proviso therefore relating to their estates, was not inserted because he had no benefit by the money raised, but was properly a condition, upon which his government consented to vest the whole power of choosing the officers in the people, and is declarative of the rights of his situation, of which the people in general might be ignorant.

I think, with you, that the proprietary tax would not be more than an hundredth part of the whole, but cannot therefore admit, that if he is taxed, he should be excluded from any voice in the choice of those empowered him, or that the officers, in their own right, can make the assent of his representatives; nor can I easily conceive, that a negative upon a choice is half the choice, or indeed any part of it; but what you say upon this head has very little argumentative force, I shall not dwell upon it, but say something as the law itself.

From the tenor of the it appears to me to be intended, not only for laying and raising taxes to defray the necessary charges in every county, but to settle the mode of raising money upon occasions; it directs the of choosing commissioners, assessors, collectors, and treasurers, gives them particular powers, and regulates the conduct of those intrusted with the laying and receiving taxes. It is a positive and perpetual law, and by a special proviso expressly declares the proprietary liable to taxes. You yourselves apply a provincial purposer by the bill under consideration, and the apparent reason why it was never applied to that purpose before is, that no provincial tax has ever been laid since the enacting of that law.

You are certainly impowered, by some temporary to dispose of particular monies raised by those laws, when they into the public officers, and I do not know that this power has been disputed; the legislature that gave those laws a being, had a right to pass them in that shape, and a future legislature may do the same, if they think fit; I do conceive that you have those right to dispose of all money that shall be raised, that being no part of the charter, but must depend upon the legislature that raises it, who may reserve the disposition to themselves, give it to you, or any body else they think fit.

And here I cannot help taking notice of an expression in your message, that you have allowed

me a share in the disposition of the fifty thousand pounds. It is from you, gentlemen, that I derive the right of governing this province, or from your allowance that I have a voice in the legislature? are you the sovereign disposers of power? have you a right to give and take away at pleasure? if not, whence that lofty claim of allowing governor a share in the disposition of public money? is not the whole property of the people subject to the power of the legislature; and have I not a voice in that legislature, not derived or dependent upon, you; and how you therefore by a right to allow me a share in the disposition of money, which cannot be raised without my consent? such language may possibly be agreeable to your notions of your own superlative powers, but is not justified by the constitution established by charter, any rights properly belonging to an assembly: and your claiming such a power, shows the extensiveness of your plan, which is no in that respect, than you render yourselves independent, and assume a superiority over your proprietaries and governors; a plan you would not fail to carry execution, were you power equal to your inclinations.

The proprietaries do say, as you call it at the payment of a small sum of money, nor that the motive for insisting on their right, they having by me offered much more than their proportion of this tax can possibly amount to; but to preserve the rights of their station, which if they give up, whenever they are demanded, an claim will never be wanting, they will very soon be stripped of every thing they have a right to enjoy, both power and property.

Your answer my fourth reason admits, that taxing the of proprietaries is contrary to the usage and practice in this and other governments, by saying, that and usage, against reason and justice, ought to have but little weight. But I do not admit that reason and justice are on your side of the question: on the contrary, I think I have shown that they with me, and look upon the usage and as a strong evidence, that the legislatures of this and other proprietary governments are of opinion; and I very much concerned, gentlemen, that you shall choose time of imminent danger, when your country is invaded, introduce a new and extraordinary claim, to the prejudice of that absent, when you know, that however right you may think it, I have it not in my power to consent to it consistent with duty and law.

As to myself, I think it necessary say, that for the despatch of the public business at this critical conjuncture, when every honest heart should be concerned for the public service, I studiously avoided every thing that could dispute submitted between us, and earnestly recommended the same temper of mind to you; and not therefore but exceedingly surprised to turn to be thus injuriously treated, and represent as the hateful instrument, of reducing a free people to the abject of vassalage. What grounds have you, gentlemen, what heavy charges what of imposition, to common justice and common reason, have I attempted to force down your throats? have I proposed any thing you, during course of my short administration, grant supplies to the crown adequate to the exigency of the times; to the king's forces sent for our protection, and to put the province a posture of defence,

by establishing a militia, which is putting the sword into the hands of the people for their own security? and where can I be trusted with more safety than I myself? are these impositions, or are they abhorrent to common justice and reason? I have, it is true, refused to give my assent to some bills proposed by you, because they were contrary to the king's instructions; and amended others, to make them agreeable to the charter, and consistent with the liberty of the people, by lodging the disposition of the public money in the hands of the legislature; and for this, which is no more than a due obedience to the lawful commands of the crown, and the free exercise of my reason and judgment in the exercise of legislation, am I branded with infamy and reproach, and am up as the object of a people's resentment.

I am not, gentlemen, conscious to myself of having done I intended to do, any the least injury to the people committed to my charge; and the man that has oppressed or injured by me, let him stand forth and complain. Who is it in your province that does not enjoy the freedom of his own religious worship? whose liberty have I taken away? or whose property have I invaded? surely if I have taken advantage of the people's distress, and of your regard for your country, to force down your throats laws of imposition, abhorrent to justice and reason; if I have done or attempted any thing to deprive the people of their liberties, and reduce them to the abject state of vassalage, you will be able to point out some instances of these things; and I call upon you to do it if you can, and make good your charge. It is not to the people I am hateful, gentlemen, but to yourselves; and that for no other reason, but doing the duty of my station, exercising my own judgment, as a branch of the legislature, with freedom and independency, and keeping you, as I was in my power, to the duty of yours.

Had you really any tenderness for your bleeding country, would you have acted the part you have done? would you have looked tamely on, and the French themselves within your borders? would you have suffered them to increase their numbers, and fortify themselves in a place from whence, in few days, they may march an army among the inhabitants? would you have been deaf to all the affectionate warnings and calls of his majesty, the faithful guardian of his people's safety? and would you have the proper necessary, and timely assistance of an army, sent to protect these colonies? or would you now, when that army is defeated, waste your time in disputing about the extraordinary claims of your own raising, when every head and hand should be employed for the public safety?

However, gentlemen, to conclude, let me entreat you to lay aside all heat and animosity, to consider the peace and defenceless of the inhabitants with a temper of mind becoming the important occasion; to look upon the French, and their Indians, as your only enemies, and the that intend to enslave you; and assured, your proprietaries or governor, no less to the prejudice of the people of Pennsylvania, will continue to protect them in the enjoyment of their just rights and privileges.

The assembly's the foregoing message, August 19, 1755.

MAY IT THE GOVERNOR.—How dis-

agreeable never the task may be, to wade through all the misrepresentations in the governor's long message of the thirteenth instant, a regard to truth, and to truths of importance to the welfare of our country, will oblige me to submit to it.

The governor is pleased to tell us, that "when he sent down our bill for raising fifty thousand pounds, the amendments, he expected should have returned with the amendments, and informed him which of them we agreed to, this being the usual and ordinary method in such cases." The governor allows in his message, that we have by charter, "the powers and privileges of an assembly, according to the rights of the freeborn subjects of England, and as is usual in any of the king's plantations in America." Now, we take it to be one of those privileges and powers of an assembly, to have their money-bills, granting supplies to the crown, accepted as they are tendered, if all accepted, and that without any proposal of amendments. We think this is a privilege claimed and used by the house of commons and as far as we know by all the assemblies in America: so that it is far from being the common and ordinary method to receive and discuss amendments proposed by the governor. It is therefore without foundation, that the governor supposes we agree to the other amendments, merely because we offered no reasons against any of them, but that which related to taxing the proprietary estate. For we have made that step of deviation from the common and ordinary method, entirely in consideration that the occasion for the supply was uncommon and extraordinary, hoping thereby to come more speedily to a happy conclusion in the business of the session, and without the least intention that it should ever be drawn into precedent.

The governor still insists, that taxing the proprietary estate, though it be to free it from French encroachments, will be an incumbrance on that estate. Be it so then, since the governor will have it so, for differences are less about words, than things: does this however prove the validity of the prohibitory clause in his commission? or that it is equitable and just the proprietary estate alone should exempt a tax, which all estates in Britain and her colonies now bear, cannot bear, to free that very estate from encroachments and incumbrance?

The governor is "not fortunate enough, he is pleased to say, to comprehend the force of our reasonings." He had that drawn from the 10th section of the royal charter: "which, though it gives power to the proprietaries and their deputies, lieutenants, make laws, does not alter the relation between a principal and his deputy, or make the deputy equal to, or independent of, the principal, &c." We will therefore for the governor's satisfaction, endeavour to express our sentiments yet plainer, if possible, and enforce them farther. The royal charter grants, "full, free, and absolute power (not only to the proprietary and his heirs) to him and their deputies and lieutenants, enact any whatsoever, for raising money for the safety of the country, according to their best discretion, with the assent of the freemen, &c." But the governor objects, notwithstanding, and free power, granted by the royal charter to us as the proprietaries' deputy, I cannot use my best discretion in this case, nor enact the proposed law, there is in my commission a prohibitory

clause ■ saving which restrains me; and ■ I should pass it, such prohibition notwithstanding, the ■ would ■ valid. To this we answered, ■ prohibition of the proprietaries can lessen or take away from the lieutenant-governor any power he is vested with by the royal charter; and, in support of this, as ■ argument, at least, to ■ governor, produced to him an opinion of the proprietary ■ governor's former council, on the ■ of a proviso or saving in the lieutenant's commission, that restrained, in favour of the proprietary, the power of making laws which is granted to the lieutenant in ■ royal charter. This opinion (■ the governor allows to be a good one) declares ■ saving to be void in itself, and that any laws passed by the lieutenant shall be valid, the saving notwithstanding. But the governor would distinguish it away, by alleging that though the opinion was good in that case, it is not applicable to all cases. If it is applicable to the present case, it is all that is necessary for ■ purpose, which ■ show, that a proviso in his commission, restricting the powers granted him by charter, ■ void in itself; and that if he passed a law contrary to the proviso, the law would be valid. The "relation between the principal and his deputy" still remains entire; the deputy is dependent ■ the principal, and may be removed by him at pleasure. But ■ the principal cannot give powers to the deputy which he has not himself, ■ neither can he lessen the powers given to the deputy by the charter. If the proprietary carries prohibitory clauses in his commission, restrain the deputy from passing any one law, which otherwise he had power by the charter to pass, he may by the ■ rule restrain him from passing every law, and so the deputy would be no deputy. That the charter makes the proprietary "civilly answerable for what is done in the province by their lieutenants," we conceive to be a mistake. The proprietary is by the charter, made answerable for any misdeemeanour that he himself ■ commit, ■ by ■ wilful default or neglect, against the laws of trade and navigation. But if the deputy commits a misdeemeanour, which the proprietary does not permit, through his own wilful default ■ neglect, ■ presume he ■ not answerable for such misdeemeanour by the charter; and how, in reason, now, than when the charter was given; as by ■ act of parliament of later date, every deputy appointed by the proprietary, ■ before he can act as such, receive the royal approbation. The very ■ and ■ of the things, moreover, seem ■ us to show, that a deputy to do a thing, ■ have ■ the ■ of the principal necessary for doing that thing; and every lieutenant or deputy governor, is, by the nature of his office, and the ■ of his appointment, to supply or hold the place of a governor. But the royal charter being ■ express and plain in the point, leaves ■ under no necessity of investigating ■ truth by ■. Should our constituents, when they choose ■ represent ■ in assembly, not only ■ us; but even take words of us, that we should assent to no law for the ■ and ■ effectual recovery of ■ proprietary quit-rents, ■ such a law ■ required of ■, ■ thought necessary by the governor: would he think such prohibitions or bonds ■? would he not say they were void in themselves, as forbidding what he thinks a just and reasonable thing, depriving us of the right of using our best

discretion, and restraining the powers granted to us by charter. The case ■ conceive to be ■ with respect to the proprietaries' lieutenant (who is their representative) if ■ ■ restrained ■ the governor ■ himself to be. "The government, and the exercise of the government, are inseparable," says chief justice Pollexfen, ■ famous lawyer, "and wherever government is granted, ■ exercise of that government ■ ■ and included. If ■ king grant to any ■ the governor of Jamaica, ■ the like," continues he, "sure no one will say, that that ■ ■ grant of the exercise of ■ government there." ■ ■ suppose this is as good law, with regard to the grant of the government of Pennsylvania.

The governor ■ pleased ■ that he cannot help observing, that ■ formerly used the ■ arguments against the validity of royal instructions. We ■ ■ due respect ■ desire ■ a royal instructions; the king has ■ any where a more dutiful and loyal people; but what does the governor intend by the validity of instruction does he ■ that they are ■ in the colony and if the royal instructions were such, does follow that proprietary instructions have the same validity? we apprehend there may be ■ difference, but ■ present ■ is not necessary to discuss it.

For our doubting in the least the governor's power to make the offered grants of land (free of purchase money and quit-rent for fifteen years) in the behalf of the proprietary, he is pleased to treat us with great contempt on account of ■ ignorance, observing, that "it is something very extraordinary, that the representative body of Pennsylvania should know ■ little of the affairs of the province, ■ ■ to have been informed, that the governor grants the proprietary lands under a certain power of attorney, regularly proved and recorded, called a commission of property; that this power ■ formerly vested in private persons, but for some years past has been given to the governors; and being the foundation of property, cannot be unknown to any the least acquainted with ■ circumstances of the province. At ■ now, continues the governor, to ask a question ■ two in my turn, how could you think that the lands in the province ■ granted under the powers of a commission [meaning his commission as lieutenant-governor] which expressly prohibits the granting of any? really we should be very ignorant indeed if ■ thought ■ but it happens ■ it please the governor, that ■ are perfectly well acquainted with ■ these ■ and have even now lying before ■ an authentic copy of that certain power of attorney, called ■ ■ sion of property, which ■ suppose most, who have read the governor's message, are persuaded give him full powers to make the grants of land, which in his message of the twenty-eighth past, he proposed "to make ■ such persons as shall now engage to go upon an expedition ■ remove the French from their encroachments on the river Ohio, without any purchase money, ■ free ■ quit-rent for ■ years." Our copy of this commission is taken from the records, and certified to be a true one, under the hand and office seal of the master of the rolls. We have examined it thoroughly to find the powers by which those grants were to be made, and unfortunately (we are sorry we are obliged to say it to the governor) there is no such thing; not even a syllable of the

And; but on the contrary, after a power given to the governor to grant lands claimed by virtue of former purchases, there is this clause, "and also, by warrants to be issued as aforesaid, to grant to any person or persons who shall apply for the same, and to their heirs and assigns for ever, any vacant lands within the [] provinces and counties, or any of them, upon, by, and under the same terms, methods, rents, and reservations, as have of late been used and practised in the said land office, but for no less price, condition, rent, or reservation in any wise." That is, for fifteen pounds ten shillings, per hundred acres, purchase money, and four shillings and two pence sterling quit-rent. And now will the governor give us leave to ask a question or two in our turn? "how could he think that lands might be granted away, without any purchase money, and free of quit-rent for fifteen years, under the powers of a commission which expressly forbids his granting any' under less price, condition, rent, or reservation whatever, than has of late been used and practised in the land office? how could he think of referring us to such a commission for his power to make those grants, when he knew it was never there? how could he slight his reputation so much, as to hazard such an imposition on the assembly and whole province? one so easily detected? we make no further remarks on this, lest we should again incur the censure of treating our governor in an 'unbecoming manner.'"

"The proposal, however, the governor is pleased to say, was made with a good intention: and had we raised money for an expedition to the westward, and for encouraging settlers, he should then have made an offer of the lands by proclamation, letting the adventurers know, that they were to have the choice of the lands, in preference to all others, with every thing else that could reduce the offer to a certainty, which there was no necessity of doing in a message to us, barely mentioning the thing, and recommending to us to grant an aid to those that should become settlers." It is remarkable how slowly and gradually this generous offer is squeezed out. We never heard a word of it during all the time of general Braddock's expedition, for which recruits were raised both in this and the neighbouring colonies, though the governor brought over with him, and had in his pocket all the while, that "certain power of attorney, called a commission of property," to which we are referred for his powers of making the offer. But as soon as the house had voted to raise fifty thousand pounds by a tax on all the estates in the province, real and personal, down comes a message, containing a proposal to grant lands to the soldiers who should engage in the expedition; a proposal made with a good intention, as the governor says; that is, with an intention to get the proprietary estate exempted from the tax, by securing to ~~them~~ an equivalent in another manner: but worded in the most cautious terms, as became an offer made without authority; and so as indeed to offer nothing that could affect the proprietary: for the quit-rent to be reserved, not being ascertained, but left in the proprietary's breast, he might, when the patents were to issue, demand a quit-rent greater than the worth of the land. This being observed, and talked of, we had another message, intimating that the quit-rent to be reserved should be only the common quit-rent of four shillings and two pence sterling, per hundred

came from Virginia to purchase here, on account of the superior goodness or convenience of our lands: the contrary, have many thousands of families gone from hence thither, and within these few years settled fifteen or twenty new counties in the colony? have not thousands likewise left to settle in Carolina? had not the exorbitant prices at which the proprietaries sold their lands, and their neglect of Indian purchasing in order to keep up that price, driven these people from among us, this province would this day have been in a much flourishing condition. Our number of inhabitants and our trade would in all probability, have been double; we should have been more able to defend the proprietary estate, and pay his tax for him, and possibly more willing, if they are gone, and gone for ever, and numbers going after them! and if the new politics prevail, and distinguishing privileges are one by one taken from us; we may, without the gift of prophecy venture to think, that the province will soon empty itself much faster than it ever filled.

In fine this offer was in fact a illusion intended first to impose on the assembly, and then on the people: it was likewise a figure with home in the eyes of the ministry. We discovered the deception and the governor is offended that we did not keep the secret. He is astonished that we should depreciate an offer which would have had very good effects, and induced many to have gone on expedition and become settlers, that would not otherwise have thought of doing either. May it please the governor, had an opinion as he is pleased to entertain of this consequence; and would not choose, by silence, to have any share in the disappointment, and other ill consequences which might ensue to those who should have gone on that vague, empty, unarranted offer, and not otherwise have thought of it. And we, in our turn, may be surprised that the governor should expect it of us.

We in the next place told by the governor, that we take a very nice distinction between the proprietary as owner of land, and the proprietary as chief governor, and say, we do not tax him as governor, but as a land-holder and fellow-subject. Our words are, "We do propose to tax him as governor, &c."—but the governor by carefully omitting the word *propose*, in his quotation, gives himself an opportunity of expatiating on the absurdity and insolence of inverting the order of things, and assuming a power to tax the proprietaries, "under whom, [he is pleased to say] we derive the power of acting civilly." Had the word *propose* been honestly left in its place, there would have been no occasion for all this declamation; and the demand, "How can you by a right to tax them?" might have well been spared; though we as an assembly have no right to tax the proprietary estate, yet the proprietary and assembly together have surely such a right; and as he is pleased "by his own particular representative the governor, we may have a right to propose such a thing to him, if we think it reasonable. Especially since we do not, as the governor imagines we do, derive our power of acting as an assembly from the proprietary, but from the same royal charter, that empowers him to act as governor.

We had been told in a former message, that the proprietary ought to be exempt from taxes.

he was a governor, and governors exempt by nature of their office. We replied, that we do not govern us, the province supported his lieutenant to do that duty for him. On this the governor now makes the following observation: "It may be very true, as you say, that the proprietaries do not govern you: but is not owing to any of a legal authority in them, but another, that I need not mention here." We were reproached in the beginning of this message, as playing with words, and the governor, it seems, has now caught the intention. The reason we gave why the proprietary could not be said to govern us, was a plain one. But the governor insinuates, some other cause without explaining it, that there may be room for reader's imagination to make it any thing or every thing that is bad. We these dark insinuations and shall speak minds openly. It may be thought rude and impolite, perhaps, but at least fair and honest, and may prevent misunderstandings. If, therefore, the present proprietaries do govern us it is because they never excluded the government in their own persons, but, as we said before, employ a deputy; and if the deputy does not govern us, it is not because we are ungovernable or rebellious, as he would insinuate, nor for want of sufficient power in his hands by the constitution: but because he has not that spirit of government, that skill, and those abilities, that should qualify him for his station.

The governor is pleased to tell us, "that our distinction between the proprietary as owner of land, and the proprietary as chief governor has no existence in law or reason." We shall endeavour to show him, that it exists in both with regard to the king, and that we presume it may with regard to the proprietary. The governor tells us likewise, as a matter of law, "that the king can have no private estate, but from the dignity of his office holds his lands in right of the crown." We are not any of lawyers by profession, and would not venture to dispute the governor's opinion, if we did not imagine we had good authority for it; we find in Viner's abridgement, allowed book, title descent of lands, these observations, which we hope may be satisfactory to the governor in both points. It is there said, "that the king has two capacities, for he has two bodies, of which the one is a body natural, consisting of natural members, as every other is; the other is a body politic, and his subjects thereof are his subjects. He may take in his body natural, lands, tenements, as heir to any of his ancestors; and also in this capacity may purchase to him and his heirs, and his heirs shall retain it, notwithstanding that it is derived from the royal crown. And he may also take or purchase lands or tenements in fee in his body politic, that is to say, him and to his heirs kings of England, him and his successors kings of England; and so his double capacity remains, as it does in other persons who have a double capacity, as bishop or dean, &c." We presume that our proprietaries hold the lands themselves, and the other lands they may have purchased in their province, in their private capacities, as Thomas Penn, Richard Penn, and in their capacity of chief governor. The governor is pleased to allow, "that one reason why the king's fee-farm rents are taxed in England, may be, that the land-tax

should not be heavier upon other lands in the same district." It seems to me a good reason, that we hold as well in our case. For should the proprietaries be on increasing their already enormous estate, and all their mortgages, add field to field, make purchase after purchase, the number of freeholders in the province is reduced to a handful; it be thought reasonable that every time it comes into their hands shall be exempt from taxes, and the burden of supporting the government, and defending the province, thrown all upon the remainder? and yet this be the case if our distinction has, as the governor says, no existence in law or reason.

The governor that fees and perquisites he enjoys paid for support of government: they are, he says, "only moderate fees consented to be by law, as considerations for the business done; and the public house licenses, which are the chief of them, were originally granted by charter." This latter assertion is quite unintelligible. We can see no such grant in the royal charter, nor can we conceive how the proprietary can grant a fee to himself by his charter. The governor is a stranger here, and may be unacquainted with the rise and establishment of what is called the support of government among us. He will therefore permit us to relate it to him, as we have received it from our ancestors, and find traces of it on our records. When the first settlers purchased lands from the proprietary, he demanded, besides the consideration money, that a quit-rent should be reserved and paid to him and his heirs yearly for ever. They objected against this as a disagreeable and unreasonable incumbrance; but were told, that the proprietary being also governor, though he took the purchase money for the land as proprietary, he reserved the quit-rents to be paid for his support as governor; for that government must be supported, and these quit-rents would be the most equal and easy tax, and prevent the necessity of other taxes for that purpose here, as they in the king's government of Virginia. These reasons induced them to acquiesce in it. But the proprietary's affairs calling him to reside in England, and the quit-rents, in but few, being all wanted to support him there, a lieutenant-governor became necessary, and also a support for that lieutenant, as the proprietary, through the necessity of his affairs, was unable to support him.

The public-house licenses and other licenses and fees were pitched upon for this second support, and by perpetual laws were given to the governor for the time being. But governors, a sort of officers, easily satisfied with salary, complaining that they were insufficient to maintain suitably the dignity of their station, occasional presents were added from time to time, and those at length came to be expected as of right, which, if conceded to, and established by the people, would have made a third support. Our situation at this time is, that the present proprietaries claim, and enjoy the quit-rents (which were the first support) as part of their private estate, and draw them to England where they reside, remote from their government, supplying their place here by a lieutenant. The lieutenant takes and enjoys the license money, and other perquisites, which were the second support, and though he has from thirty shillings to three pounds for writing his name only (the secretary being paid six shillings for the license and seal) they are only moderate fees in con-

sideration of business done. And if we do not regularly give those additional presents, which were only the marks of our good will, tokens of the satisfaction we had in a governor's administration: every thing else that a governor enjoys is forgot, and we are charged both at home and with the heinous crime of presuming to withhold the support of government. Thus we see how custom may become a law, how thrifty a thing power is, and how hard to be satisfied. "Claims, as the governor says, never be wanting," and if the people will give "when-ever they are required" give, they may soon be "stripped of every thing they have a right to enjoy."

The governor is pleased to acquaint us, that all the fees and perquisites of this government do not amount, *commercibus annis*, to more than a thousand pounds, meaning, as we suppose, sterling money. This the governor enjoys fully and freely, and we must interfere in the disposition of it, any more than in the proprietaries' disposition of the quit-rents. We think this a handsome support for a governor; and though he calls only moderate fees for business done: yet if he earn one thousand pounds sterling a year in such fees, the business certainly be a good one.

On our saying that the proprietaries and governors of petty colonies more prerogatives and immunities than ever were claimed by their royal master, the governor grows warm in behalf of the proprietaries, and demands, with all the air of a person conscious of being in the right, what instances can give of that assuming behaviour in your proprietaries; we answer, the present instance: for the king does not claim an exemption from taxes for his private estate, as our proprietaries do. Have they ever claimed any right or prerogatives not granted them by the royal charter, or reserved by that of their father? yes, the right of being exempt from taxes for their estate in Pennsylvania, when their fellow-subjects (for the proprietaries are subjects, though the governor disdain the term) both in England and America, not excepting even the lords and of parliament, are obliged to undergo a tax for the recovery of part, and defence of the of that very estate. This right is not granted them by the royal charter, nor could it be reserved by their charter. Can you lay to their charge one instance of injustice or severity? This is of injustice and severity, to insist that people shall not be allowed to raise money for their own defence, unless they will agree to do the proprietary estates gratis. This be complied with, the war continue, what shall hinder them another year, when the fifty thousand pounds is expended, require, that before we are allowed to raise another sum for the same purpose, we agree not only to defend their lands, but plough them: for this the proprietaries allege the "usage and custom" in Germany, and put us in mind, that we are chiefly Germans. Who can assure us, that their appropriated lands, so long kept untenanted and idle, are not reserved in expectation of some such fortunate opportunity? can other instances, in answer to the governor's questions, satisfy? If he thinks it discreet to insist on more, they may soon be satisfied.

We are then desired to turn our eyes on our own conduct, and charged in high terms with "taking upon ourselves great and mighty powers;

dispensing with positive laws, and claiming a right of disposing of all public money, a right of keeping our proceedings a secret from the crown, with, as the governor is pleased to say, many others, unknown to the English constitution, and never heard of in the other plantations. A round charge, easily made than answered. The governor allows, "that we have all the powers and privileges of an assembly, according to the rights of the free-born subjects of England, and as usual in any of the King's plantations in America;" and "neither claim nor practice but what is usual in other of them. We claim a right of dispensing with laws. The right of disposing of our own money, we think is a natural right, and we have enjoyed it since the settlement of the province, and constantly born in the exercise of it in every instance, except perhaps in a few, where, extraordinary provisions, have been chosen to make special appropriations by a particular act. It is also possessed and practised by several other assemblies. We have moreover the right of disposing of the present revenue by positive laws, which have received the royal sanction. This natural and legal right, as we contend it is, was never denied us, or called in question, as we know of, but by our present proprietaries. Their ever hearty friend, the late governor's father who had lived many years among us, and was skilled in our laws, in a former speech, recorded in our minutes, mentions this as one of our civil rights, among the other happinesses of our constitution, with which he was thoroughly acquainted. Our inserting therefore in the bill a clause, that the governor should have a voice in the disposition of the money intended to be raised, was partly in consideration that the proprietary was, by the bill, to contribute in proportion to his estate, and to avoid considerable disputes; but since we are daily more and more convinced that the governor is no friend to our country, and takes a pleasure in contriving all possible methods of expense, we exhaust our funds, and distract our affairs (of which the present exorbitant demand of five thousand pounds, besides what we have already paid, for cutting a road, and undertaking he engaged us in on a computation its costing eight hundred pounds, and which if this due course about an hundred pounds per mile, it will become us to be particularly careful how our public money shall be expended, when the greatest sums which be raised upon this young colony must be so far short of what may become absolutely necessary to our security.

That we claim a right of keeping our proceedings a secret from the crown, another of the governor's groundless accusations, has been twice refused, and is yet a third courageously repeated; though all the province knows that our votes and proceedings every year printed and published, and have been so for their thirty years past and present. Equally groundless are the many others which the governor forbears to particularize. Could he have thought of one that had the least apparent foundation, he would not have spared it.

Plans and schemes of aggrandizing ourselves, the governor has often charged us with, and now repeats the charge. He affects to consider us as a permanent body, or a particular order of people in the state, capable of planning and scheming, their own particular advantage, distinct

of the province in general. How groundless this must be, is easily conceived, when it is considered, that we are packed out from among the people by their suffrages, we represent them for one year only; which ended, we return again among the people, and others may be, and often are chosen in our places. No one of us knows a day before the election that he shall be chosen, we neither bribe nor solicit the voters, but every one votes as he pleases, and as privately as he pleases, the election being by written tickets sealed up and put into a box. What interest such a body have, separate from that of the public? What schemes can a set of men, continually changing, have or what plans can they form to aggrandize themselves, or to what purpose should they have or form them? The little power allowed us by the constitution is fixed in our particular families, and to descend to us heirs. The proprietary power does in the contrary, we might then be suspected of these aggrandizing plans and schemes, with more appearance of probability. But if any of us had such schemes, the want of a single vote in any election might totally disconcert them, there being no more secure precarious than that by popular election or favour.

The governor next considers what we have said relating to the act for raising county rates and levies, and is pleased to say, that "he does not see why the proprietary estate in each county is not benefited in the same manner with other estates, and by the same means. That the proprietaries' estate should be excused in a county rate, at least so far as that rate is levied for the payment of assemblymen's wages, appears to us equitable; for it would be unreasonable to tax an estate to defray the expenses, if the possessor had no vote in choosing a representative in that house. But we conceive it is widely different in a provincial tax, where the common interest and security of all are concerned, and yet if the proprietaries should purchase estates which have usually been taxed by the county rate and levy act for that purpose, we presume those estates ought to continue to pay their assessments. It was the opinion of the solicitor-general in King William's time, that the lords had no right to vote in the elections of a commoner, because they were not contributors to the expenses of a knight of the shire or burgess; and they were contributors to that expense, because they were of another house. But they purchased lands when before such purchase, chargeable with those expenses, those lands should, notwithstanding that purchase, continue chargeable therewith by law; although before the act, the lands the lords were seized of, or purchased, were excused from that charge. But though such lands were excused from these rates, will any from thence allege that the lords are exempted from paying the municipal taxes? or for the rest of the expenses provided for by that act? we thought, the proprietaries cultivated lands in any of the counties, but then lie for a market, he had probably sheep, might suffer by wolves, poultry by foxes or corn by crows and blackbirds, &c. and therefore might reasonably be excused from those taxes that were raised money to destroy such vermin. But on further consideration, we are willing to give up that point to the governor, and agree that there may on other considerations be equally benefited; concluding what, that they ought therefore equally to pay. For as to the conditions of the governor mentions, they are merely

imaginary, though the governor speaks of them with the same apparent assurance as if he had the contract between the then governor and assembly under hand and seal in his possession. The exempting proviso in that act, the governor says, "declarative of the rights of the proprietaries' station, of which the people in general might be ignorant." Be it so then, and let us see what are the words: "Provided also, that the proprietary and governor's estate shall be rated and assessed, by virtue of this act." We submit. Their estate shall not be taxed by virtue of that act, for the purposes intended by that act. 'tis the right of their estate it is, is it? why they should not be taxed by any other act, for any other purposes, by another act for the same purposes, when it shall be reasonable and necessary?

There is in the act, an exemption from the tax, of all "unsettled tracts or parcels of land, belonging to any person whatsoever." Is this too, declarative of the right of such landholder's station, and does he expressly declare, that those gentlemen are "not liable to taxes?" if why did not the governor object to that part of it? likewise, which proposes to tax all located lands, on this occasion, whether settled or unsettled. Those plain words, the proprietary estate shall not be liable to be rated by virtue of this act, must be stretched on the rack before they can be extended, as the governor extends them, to a general declaration, "that the proprietary is not liable to taxes." But he is a detestable disputer, and can at pleasure change the meanings of the plainest words, and make them signify more or less, as it suits his purpose. As, for another instance; he had asked this question, "whether, supposing the proprietary estate to be taxed, it would be equitable that he should have a negative in the choice of the same?" since that would give him half the choice, though he were to pay perhaps not a hundredth part of the tax? the governor eagerly lays hold of these very loose and uncertain words, "though he were to pay perhaps not a hundredth part," which is introduced merely for the argument's sake, and construes them into a determination of what would be the proprietaries' proportion, which he is pleased to agree to, by telling us, "I think with you that the proprietary tax would not be more than a hundredth part of the whole." when 'tis plain we had no thought of all of fixing any proportion to be paid by the proprietary estate, or any other estate, being destitute of the proper informations, and having by the same means to the commissioners and assessors, who were to have before them the constables' returns, and who were sworn, or solemnly affirmed, to do equal justice, after informing themselves of the value of the same in the best manner they could, by all the means in their power. We mentioned thousandth or thousandth part, we make no doubt the governor would have been complainant enough, think with us in that particular, though we differ in every thing else.

The governor "cannot easily conceive," he is pleased to say, "that a negative upon a choice is half that choice, or indeed any part of it." We think a negative may be in effect more than the choice, and even amount to the whole, 'tis so repeated till there is no choice left, but that which the possessor of the negating power chooses. The

peers of Great Britain have no vote, nor can they intermeddle in the election of a commoner; and yet the same claim it as a fundamental right to subject their estates to taxes by a bill, the whole of which the lords must either refuse or pass. And the same body, who contribute so largely to the public stock, acquiesce in it as a sufficient security for their estates. Our proprietaries are unhappy of different sentiments. They cannot think themselves safe, unless their whole estate here be entirely exempted, and the burden of defending it become an additional weight to the taxes on our mother country, and the freemen of this and the neighbouring colonies.

The governor is grievously offended by an expression in our message, that we have in our bill allowed him a share in the disposition of the fifty thousand pounds: and thunders over us in a storm of angry questions. "Is it from you gentlemen that I derive the right of governing this province, or from your allowance that I have a voice in the legislature? you the sovereign disposers of power? have you the right to give and take away at pleasure? if not, whence that lofty claim of allowing the governor a share in the disposition of the public money? if the governor will but have a little patience, we shall enquire of him a few cooler questions, to explain this matter to him as well as we are able. Are not all money bills to take their rise in the house? can he possibly have any share in the disposition of public money if it is not raised? and is it he that raises it without our allowance? has the governor a right to make amendments to a money bill? if therefore a clause is put into such bill, giving him a voice in the disposition of our money, is not such clause to be first allowed by us to be inserted? to what purpose then were all those haughty questions? we shall answer them in a few words. We are 'the sovereign disposers of power.' nor does the governor 'derive from us the right of governing this province.' it were a vain thing in us to say it since his being our governor would alone be a sufficient proof to the contrary.

The governor is pleased to say, that he studiously avoided every thing that could disturb the dispute subsisting between us: and earnestly commended the same temper of mind to us. This may be right, as he relates his first speech at the opening of the session: but his amendments to our bill, appeared to us, that he studiously proposed every thing that he thought could disgust us, in hopes of engaging us in some other dispute than that of settling the proprietaries' estate, and of making his bill with the same ineffectual and abortive. Why else among other things, did he strike that harmless part of the preamble, which gave as a reason for the bill, the exhausting of our treasury by late expensive grants of provisions, &c. to the king's use. He did not choose the bill should mention any thing we had done, lest by that it should reach the royal ear, and refute his repeated accusation, that we "had done nothing." would do any thing, for defence of the country; when he knows, in his conscience we have given all in our power, and it was well we had it in our power to give something, otherwise neither the nor New-England troops would have had the provisions we furnished; nor could the governor possibly have done it, we have reason to believe he would have defeated our grant; he can no more bear to let us

do any thing commendable. than he ~~can~~ bear ~~the~~ hear what we have done mentioned.

It is true the governor recommended a good temper of mind to us; he ~~can~~ make plausible speeches, that will read well in other places where his conduct is ~~known~~. Indeed they appear not so much to be made for ~~us~~ as ~~others~~; to show the ministry ~~the~~ home his great zeal ~~his~~ his majesty's service and ~~for~~ for the welfare of this people! and to recommend himself as it should seem, to ~~be~~ better ~~heresafter~~, rather than to obtain the present points ~~to~~ to be personal. For of what avail ~~the~~ the best speeches, ~~are~~ accompanied with suitable actions? he has recommended despatch in very good words, and immediately hatched ~~dispute~~ ~~on~~ occasion delay. He can recommend peace and unanimity in fine and moving language, and immediately contrive something to provoke and excite discord; ~~the~~ settled scheme being, not to ~~us~~ do any thing that may recommend ~~us~~ to those with whom he would ruin us. He would appear to be in great haste to have something done, and spurs violently with both heels, but ~~at~~ at the ~~same~~ time to rein in strongly with both hands lest the public business before us should go forward. When we offered him to raise money ~~on~~ the excise, a method long ~~us~~ us, and found easy to the people, he quarrelled with us about the time of extending the act, complained it would raise too little, and yet was for shortening the term. (I thought instructions were inserted up against it, though acts of the same kind had been since passed by the crown Acts of parliament made for other colonies were to be enforced here, and the like. Then he called out for a tax, which the proprietors themselves (in their answer to our representation) allowed to be the most equitable way of raising money: thinking, it is like, that we should never agree to a tax. But now when ~~we~~ offer an equitable tax on all estates real and personal, he refuses that, because the proprietors are to be taxed!)

The governor thinks himself injuriously treated by our request, "that he would not make himself the hateful instrument of reducing a free people to the object ~~of~~ of vassalage," and asks, "what grounds have you, gentlemen, for this heavy charge? what laws of imposition abhorrent to common justice and ~~have~~ have I attempted to force down ~~on~~ throats?" &c. A law to tax the people of Pennsylvania to defend the proprietary estate, and to ~~except~~ the proprietary estate from bearing any part of the tax, is, may it please the governor, a law abhorrent to ~~common~~ justice, common reason, and common ~~sense~~. This is a law of imposition, that the governor would force down our throats, by taking advantage of the distress of our country, the defence of which he will ~~not~~ suffer us to provide for, unless ~~we~~ will comply with ~~him~~. Our souls rise against it. We cannot swallow it. What other instance would the governor desire us to ~~give~~ of his endeavouring to reduce ~~us~~ to a state of ~~vassalage~~? he calls upon us for instance. We give him the very law in question, as the strongest of instances. Vassals must follow their lords to the wars in defence of their lands; our lord proprietary, though a subject like ourselves, would send ~~us~~ to fight ~~him~~, while ~~he~~ keeps ~~a~~ a thousand leagues remote from danger! vassals fight ~~for~~ their lords' expense, but our lord would have ~~us~~ defend his ~~own~~ ~~own~~ our own expense! ~~he~~ is not merely ~~vassalage~~ salvage, it ~~is~~ ~~more~~ than any ~~vassalage~~ we have

heard of; it is something we have no adequate name for; it is even ~~more~~ slavish than slavery itself. And if the governor can accomplish it, he will be deemed the hateful instrument (how much sorer he is disgusted with the epithet) ~~in~~ long history can preserve the memory of ~~his~~ administration. Does the governor ~~can~~ exculpate himself, by calling upon us to prove ~~him~~ guilty of crimes we have never charged him with; whose liberty have I taken away? whose property have I invaded? if he ~~can~~ force us into this law, the liberty and property, not only of one man, but of ~~the~~ men in the province, will be invaded and taken away: and this ~~is~~ aggrandize our intended lord, increase and ~~enlarge~~ his estate ~~and~~ our ~~and~~ and give him the glorious privilege that ~~the~~ British nobleman enjoys, of having his lands free from taxes, and defended gratis. But what is the loss of even liberty and property, compared with the loss of our good ~~and~~ fame, which the governor has, by every artifice, endeavoured to deprive ~~us~~ of, and ~~to~~ ruin ~~us~~ in the estimation of all mankind. Accusations secretly dispersed in the neighbouring provinces and ~~in~~ mother country, nameless libels put into the hands of every member of parliament, lords and commons! but these were modest attacks compared with his public messages, filled with the most severe and heavy charges against us, without the least foundation, such as those in his message of the sixteenth of May last: some of which, though then fully refuted, he now ventures to renew by exclaiming in these terms, had you any regard for your bleeding country, would you have been deaf to all the affectionate warnings and calls of his majesty? and would you have refused the proper, necessary, and timely assistance to an army sent to protect these colonies? for it is not well known that we have ceased every method, consistent with our rights and liberties, to comply with the calls of the crown, which have frequently been defeated either by proprietary instructions or the perverseness of our governor? did we not supply that army plentifully with all they asked of us, and were ~~we~~ than all? in testimony of which, have we not letters from the late general, and other principal officers acknowledging ~~our~~ care, and thanking us cordially for ~~our~~ service? these things are well known here; but there is ~~no~~ charge that the governor cannot allow himself ~~to~~ throw ~~against~~ against us, so it may have the least chance of gaining ~~us~~ small credit somewhere, though of the shortest continuance.

In fine, we are sincerely grieved at the present unhappy state of our affairs; but must endeavour patiently to wait for that relief which Providence may, in due time think ~~it~~ favour ~~us~~ with, having, if this bill is still refused, very little farther hopes ~~any~~ good from our present governor.

The governor's reply, September 24. 1755.

GENTLEMEN.—In the course of my short administration among you, I have often regretted, that at a time when it becomes every one of us to be consulting and acting for the public good, you should still delight to introduce new and unnecessary disputes, and turn the ~~attention~~ of the people from things of the last importance to their future safety.

Your very tedious message of the nineteenth of August, is a sufficient proof of your temper of

mind: it is indeed of such an inflammatory nature, that did not the ~~good~~ of my station and justice to the people require me to take some notice of it, I should think it beneath me as a gentleman to make any reply to a paper of that kind, filled with the grossest calumny and abuse, as well as the glaring misrepresentations of facts; and what I shall now say in answer to it would have been said in your last sitting, had you not adjourned yourselves so soon after the delivery of it, that I had not time.

You set out with claiming it as a privilege to have your bills granting supplies passed as they are tendered, without amendments, and say, "it is far from being an ordinary method to receive or ~~upon~~ amendments offered by the governor."

This claim is not warranted by the words of the charter, ~~nor~~ by the usage of former assemblies, and you yourselves must know, that from the first settlement of the province to the latter end of the administration of Mr. Hamilton, my immediate predecessor, the government has occasionally amended ~~in~~ raising money, and their right of doing so ~~was~~ till then contested.

Notwithstanding all you have said as to my offer of lands to the westward, I am persuaded unprejudiced ~~men~~ will see it in its light, and be convinced it was made with a good intention, and under a proper authority: I mentioned my commission of property in contradistinction to the commission of government, as that under which I granted ~~land~~ upon the ~~extraordinary~~ and ordinary occasions, which you ~~say~~ to think was done under the other. But as to the offer in question, I had such directions from the proprietaries as were sufficient to justify me in making it, and would have been obligatory on them to confirm the same to the adventurers; and this I did then, and still do. think a good authority.

You do profess to understand law. I am surprised ~~at~~ your quoting an abridgment instead of the ~~law~~ abridged. Viner, who is no authority, may have the words you mention; aught I know, ~~may~~ may be of opinion ~~that~~ king can purchase and hold lands in his private capacity, but in that he has the misfortune to differ from my lord Coke, and other writers of note and authority in the law.

Your ~~answer~~ to what you call my round charge, and to what you afterwards call my haughty questions, are, by no means, conclusive; I grant that public money ~~may~~ be raised, nor any clause enacted for the disposition of it, without your consent, but is ~~not~~ mine equally ~~to~~ say? whence is it then that I should be thought more obliged to you for a voice in the disposition of public money, than you are to me, seeing the obligation (if any) is reciprocal: the money remaining in the people's pockets cannot be taken from thence, till I think a law necessary for that purpose, and shall I have less power over it after it is raised, and in the public treasury, than I had before? The common security of the people requires that they should not be taxed but by the voice of the whole legislature, and is it not equally for their security that the money when raised should not be disposed of by any less authority? Your claim therefore of a natural exclusive right to the disposition of public money, because it is the people's, is, against ~~the~~ the nature of an English government, and the usage of this province, and you may as well claim the exclusive right to all the powers of government, and set up

a democracy at once, because all power is derived from the people; and this indeed may be the true design.

As to what you insinuate concerning the immensurable growth of the proprietary estate, I shall oppose plain facts to your presumptions. By the original concessions and agreement between the late Mr. William Penn and the first settlers, nine tenths of the land ~~was~~ he granted to the adventurers, and the remaining tenth to be laid out to the proprietary; but instead of this, the late proprietary, out of the lands purchased of the Indians in his time, contented himself with taking ~~but~~ but a very small part of what he might have done under that agreement; and out of the three Indian purchases made by him since his death, in the two first, consisting of four millions of acres of land, they did not survey upwards of twenty-five thousand acres, and those neither of the richest ~~nor~~ best situated; and in the last which is by far the largest of all, surveys have been made for their use, but they gave early directions, that the settlers should ~~as~~ they applied take their choice of the best lands, and accordingly great numbers of people are settled on these lands, to their entire satisfaction. As to their manner and appropriated tracts, it is well known ~~that~~ they ~~are~~ mostly settled by persons without leave or title, and that these pay their share of all taxes: in short, gentlemen, if instead of setting the proprietaries forth as increasing their estates, and using their tenant-like roads, you had represented them as foreclosing with their ~~own~~ and using ~~any~~ compulsory methods for the obtaining even of their just debts, and that for these and many other instances of their kind usage of them, the proprietaries ~~are~~ entitled to the character of good, nay of the best landlords, you had done them ~~no~~ more than justice, and said only what is notorious to all that know their treatment of ~~the~~ people in this province.

I can by no means allow you to argue justly, saying that the proprietaries ought to submit themselves to be taxed by ~~the~~ chosen by the people, because they ~~are~~ or solemnly affirmed ~~to~~ do equal justice. When you are taxed by these assessors, it is by persons who may be considered as your equals, and who ~~are~~ interested to do you justice, as you ~~in~~ your turn may become their ~~assessors~~. But the proprietary estate and interest being considered as separate from yours, because the proprietaries are a separate branch of the legislature, they can never in that view be taxed by any persons, unless those whose interest it is to save their own estates by throwing an unequal burden upon the proprietaries; and you must know that this ~~is~~ the very consideration upon which the law in certain ~~cases~~ excepts against both the judgment and evidence of interested persons, lest they should be influenced therein, even against the solemnity and obligations of an oath.

You say, that "all estates in Britain, and her colonies, ~~pay~~ bear, ~~as~~ bear, a tax to free the proprietary ~~from~~ from encroachments and incumbrance." Invidious ~~and~~ ungrateful insinuation! is there nothing but this at stake! ~~is~~ for a tract of unsettled country, belonging to the proprietaries of ~~the~~ province, that the eyes of all Europe ~~are~~ turned upon this continent, and such mighty preparations making both by ~~the~~ ~~the~~ or, gentlemen, can you think that if the enemy ~~are~~ ~~are~~ to keep up fortifications in any private estate whatsoever within the limits of ~~the~~ province,

you could preserve your estates, or the English nation preserve its dominions? what end then can such insinuations serve, but to cool the ardour of his majesty's good subjects in recovering the country unjustly taken from them, as if they were contented with a thing of no consequence, which is but too much the opinion of many amongst us, raised and confirmed, no doubt, by your strange conduct.

You charge me with contriving possible methods of expense to exhaust your lands, and distress your affairs, and give me instance of an exorbitant demand of five thousand pounds, cutting the road for the army, an undertaking you say, I engaged you in as a computation of its costing only eight hundred pounds. How could you stumble on a matter which, on a very slight examination, appear to be without the least foundation! your own minutes show that you resolved to bear the charge of cutting two roads, one to Will's creek, and the other to the Monongahela, and in one of your messages to me, wherein you mention your meritorious act, you set this road, the Ohio particularly forth in such a manner as to have it believed, that it would prove a heavy expense which, nevertheless, you would not decline to bear, as the king's service required it; and now you insinuate, that had you known it would have cost more than eight hundred pounds, you would have undertaken it, and this for other than to lay to my charge a pretended estimate, of which I am totally ignorant, having never seen or heard of one. The sum of eight hundred pounds might have been mentioned as what it would cost in some men's private opinion, but not upon my estimate of the millions, as such sent to me. To be plain, gentlemen, it was the resentment and of the officers in the army, entrusted with that part of the king's service, because the work was not begun in time (and it could not have been begun sooner by me as you would not sooner comply with my request) I say your dread of having proper representations made of your conduct, home, and of an armed force being used to oblige the inhabitants to do this necessary work, and nothing else, that induced you to engage to bear the road, and had the two roads been cut, they would have cost a very great sum indeed, but by a representation I caused to be made to the general, he consented to drop the road to Will's creek, and instead of cutting the other, the Ohio, to order it to be opened no farther than the Crow-foot of Ohio-guiny, which saved clearing of many miles. He likewise consented, that the road should not be made as wide by the third as the quarter-master general had given directions for. These were great savings to the province, which, added to the regulations that were made in the price of provisions and liquor, and in the hire of the wagons, would at any other time have induced you to speak in commendation of my care and frugal use of the public money, and to charge me with a demand that I never made, indeed could not have been then made by any one, because the accounts were not come in, and now that they are delivered to you, it does appear that they will be to the sum of three thousand pounds, which is not extravagant, when you consider the distance and expedition required in the work. The commissioners, instead of being reproached with extravagance, have a right to the amplest acknowledgments for their exposing their persons to such

imminent danger, and carrying the work with as much spirit, and becoming a zeal, and though my recommendations may not have much weight with you, yet as they engaged this hazardous work by my entreaties, justice requires that they be handsomely rewarded, and their indefatigable attendance and generous advance of their own private fortunes.

You have, in the message now before me and in several others, taken great pains to infuse into the minds of the people, particularly the Germans, that the government have designs to abridge them of their privileges, and to reduce them to a state of slavery. This may, and will, alienate their affections from his majesty's government, destroy that confidence in me and its delegates, which, at this time, particularly and render all the foreigners among us very indifferent as to the French attempt upon this continent, as they cannot be in worse circumstances under them, than you have taught them to expect from the king's government.

This you may, with your usual confidence call duty, loyalty, and affection to his majesty, but I am convinced it will be esteemed such by his majesty and his ministers, before whom all these matters must be laid.—And how the innocent people of this province may be affected thereby, time will show.

You are pleased to tell me, that I am destitute of skill and abilities for my station, and have not the spirit of government in me. Gentlemen, but I have never made any boast of my abilities, nor do I pretend to know what you mean by the spirit of government. But this I know, that if I had enough of the spirit of submission, I was early given to understand, by some of your messages, that you would have then pronounced me well qualified for the administration of this province, even without the assistance of instructions, or the advice of my council.

To your spirit of government, however, in other words, your inclination, to increase and render permanent your own powers, as to be attributed all your late extraordinary proceedings, and the defenceless state of the province, for the sake of gratifying this, you scruple not to stir up his majesty's subjects against his government forgetting all duty to your sovereign and all decency to those in authority under him.

Your answers do not exculpate you from my charges against you for taking yourselves great and mighty powers, and since you call upon me to particularize them, I shall gratify you. You have created a paper currency of your own, and ordered the collectors of excise, and the trustees of the loan-office to enforce it against law; you pay your wages out of the provincial money, when the law requires and provides for their being paid in Notwithstanding it is declared by law, that persons indebted to the loan-office shall be delinquent in payment above a year, and your committee enjoined, in the settlement of their accounts, to reckon all such outstanding, as cash, the trustees' hands, yet this you have dispensed with in the settlement of the trustees' accounts year after year, and suffered the borrowers to continue in arrears for years, many of them not less than ten. A practice tending to depreciate the value of the money, and greatly injurious to the borrowers. And lastly, instead of the oaths

required by law to be taken to his majesty by men in public office, you have taken upon you to administer the affirmation to your clerk, and several of your own members, though not of the people called quakers, not at all scrupulous against taking an oath, which deprives his majesty of the provided by law to given by such hold offices, or act in public trusts.

You have often mentioned what you have done to promote the of his majesty's under general Braddock, and the defence of the province, and say, you have letters from the late general, thanking you for your service; the truth of this I beg leave to question, as the late general was honest to say one thing to you, and another to the king's ministers. He might acknowledge the services of particular men, but how you take those yourselves as an assembly, when you had no hand in what was done, I am at a loss to know. I think it will not be doubted, but that had you in time opened the proper roads, raised and provided carriages, and necessary provisions for the troops, as this was the only province able, in the general's situation, to furnish him with them, we might have been in peaceable possession of fort Duquesne.

In fine, gentlemen, I must remind you, that in my former message you said you were a plain people that had joy in disputation. But let your minutes be examined for fifteen years past, not to go higher, and in them will be found more artifice, more time and money spent in frivolous controversies, unparalleled abuses of your governors and unaffection to the crown, than in all the rest of his majesty's colonies put together. And while you continue in such a temper of mind, I have very little hopes of good, either for his majesty's service, or for the defence and protection of this unfortunate country.

The assembly's rejoinder, Sept. 29, 1755.

MAY IT PLEASE THE GOVERNOR.—The sincerity of the governor's regret in the "disputes" which subsist between us, the very first paragraph of his message gives us some room to question; since it begins with a new charge, that disputes are of introducing, and that we delight to introduce them to turn the attention of the people from "things of the last importance to their future safety." This charge itself seems designed to introduce another unnecessary dispute, since that are acquainted with our disputes know by whom they were introduced, and who it is that delights in disputing.

That our passage of the nineteenth of August was "a very tedious" one to the governor we make no doubt. We have been so in the matter, and might probably be so in the manner. There is too much truth in it, and too much flattery. We suppose too, that the task of answering it might be as tedious to the message itself; since, to shorten the work, he has passed over a number of the most important points, and all our reasoning upon them, without attempting an answer. And we think he cannot justly complain of want of time to answer that message, since we sat four days after delivering it, adjourned for near four weeks, and had been met again nine days before we received the answer, which, now we have it, we find to be such an one as might have been made in a few hours. But had our message really been "filled with the grossest calumny and

abuse," as the governor says it, we cannot think, with the governor, that it would therefore have been "beneath" as a gentleman to make any reply to it. If we were of that sentiment, we should make none to his message; we are considering. We think, that what is beneath a gentleman, is, not the answering of calumny, but making use of it. And with, for the governor's sake, that he had been of the same opinion; for he might then probably have treated us in a more suitable to his character as a gentleman, and had regard to the preservation of that character.

The governor denies, that our claim of the privilege of having our bills granting supplies amended as they tendered without amendments, is warranted by the words of the charter; though it gives us "all powers and privileges of an assembly, according to the rights of free-born subjects of England, and usual in any of the king's plantations in America." If the free-born subjects of England do exercise right by their representatives in parliament, and it is usual in any of the king's plantations in America; then we are in the wrong to claim it, and the governor is right in denying it. But facts are for us; and these, in this case, the governor does not deny. Our predecessors may in a few instances have waived that right, but they have never given it up, nor will we hope, to those that shall succeed us. We trust they will rather be more cautious of suffering such dangerous precedents when they see how fond governors are of seizing the advantage for diminishing privileges.

We agree with the governor, that what has said as to his offer of lands to the westward, does not hinder us from seeing it in its light; we think our remarks have rather contributed to that end, and even assisted those that might before be prejudiced; but are at a loss to conceive how either the prejudiced or unprejudiced could be "convinced" the offer is "made under proper authority" when neither of the governor's commissions, nor that which he calls "the foundation of property," gave him such authority; and he is reduced to the necessity of dropping them, and recurring to private instructions, mentioned of which none can judge till he shall think fit to produce them. But all may judge how well he has acquitted himself of this imputation of attempting to impose on the public, by introducing the commission of property as authority for the offer; so we shall spare the governor his head, and press it no farther.

If the governor had given himself the trouble of looking into Viner, under the title we mentioned, he might there have found the case abridged referred to; we, it seems, not being lawyers, quoted improperly; but he, though a lawyer, refers us to Lord Coke, without page, case, or volume; and to "other writers of note and authority in the law," without so much as naming names, so that we are utterly at a loss where to find the law part of his messages; but the politics and the calumny we can easily trace to their fountain head, though he does not vouchsafe to quote it at all. The perfect sameness of sentiment, and even of expression, sufficient to show, that they are all drawn from a late famous libel, entitled, "A brief state of the province of Pennsylvania;" the author, of whom, if we do say, as

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the governor says of Viner, that he has no authority; yet ■■■ may say, that his authority ■■■■ nishes daily, the more we see of his works.

The governor ■■■ pleased to say, that "the common security of the people requires that they should not be taxed but by ■■■ voice of the whole legislature;" and that "we might as well ■■■ up a democracy at once, as claim ■■■ exclusive right to the disposition of public money." To this we beg leave to answer, that though we are not so absurd ■■■ to "design a democracy," of which the governor is pleased ■■■■ us; yet in this particular, all ■■■ late attempts to ■■■ money "for the common security of the people," being obstructed and defeated by the governor's having a voice in that matter, would rather induce us to think, that his having such a voice, is not best for their security: and such a conduct in a governor, appears ■■■ us the ■■■ likely thing in the world to make people incline to a democracy, who would otherwise never have dreamt of it.

But the governor ■■■ pleased to tell us, that "our claim of a natural exclusive right to the disposition of public money, because it is the people's, is against ■■■■ the nature of an English government, and the usage of this province. He has, however, never produced that reason to us; and ■■■ still think, that as every ■■■ has, every body of ■■■ have a natural right to the disposition of their own money, by themselves or their representatives, and that the proprietary's claim of voice in the disposition of money to which he will contribute ■■■ part, is a claim contrary to reason. The wisdom of the crown has thought fit to allow different constitutions to different colonies, suitable to their different circumstances; and as they have been long settled and established, ■■■ apprehend that if the governor could have power to unsettle them all, and make in every one such changes ■■■ would be necessary to reduce them ■■■ conformity with his idea of ■■■ "English government," the reformation would be productive of more inconvenience than advantage. The general "usage of this province" in the disposition of public money, was ever what it ■■■ is; and as the province has flourished with it, and no inconvenience has attended it we hope it will still continue. Particular laws may, ■■■ a very few instances, have given the disposition of particular sums to the governor, or to commissioners, for particular services; but a few such instances do not make ■■■ usage, and the governor must in that point have been greatly misinformed.

It is agreed, that in the concessions mentioned by the governor, the proprietary reserved in every hundred thousand acres ten ■■■ himself; but then (to make the governor's "plain fact" a little plainer) ■■■ to have ■■■ by lot, and ■■■ by choice: the quantity ■■■ reserved to lie but in one place; and he was "bound to plant or man it within three years after it was set out and surveyed;" ■■■ else (by the ■■■ concession) ■■■ was "lawful for new ■■■ to settle thereupon, ■■■ he ■■■ go higher "up ■■■ his share." This might induce him ■■■ to take up ■■■ than he could conveniently settle; ■■■ give his successors no right to pick here and there the best vacant pieces ■■■ settlements, excluding other rights: nor ■■■ keep the land-office shut, ■■■ was done after the second mentioned purchase, ■■■ they had garbled ■■■ best ■■■ themselves ■■■ pendants, and left ■■■ besides rocks and barren mountains for the ■■■ of the people. The

third ■■■ last purchase being made but the last year, and the land mostly exposed to, or, ■■■ the governor has often informed ■■■ in the hands of the enemy, ■■■ surprised to hear that "great numbers of people are seated on ■■■ to their entire satisfaction;" and ■■■ that the proprietaries' manors and appropriated tracts ■■■ mostly settled by persons that pay their share of all taxes. If this be so, we ■■■ own ourselves a ■■■ much ■■■ acquainted with the state of his lands, ■■■ with the state and management of the land-office, which of late, indeed, is pretty much a mystery. That the proprietaries are entitled to the character of the best landlords, ■■■ can by no means presume to say with the governor; since his majesty's lands are granted without purchase money on ■■■ the quit-rent, and the quit-rents are applied to the support of government and defence of the country; we ■■■ therefore but ■■■ of opinion, that the king ■■■ a much better landlord.

If the governor would please to consider that it does not ■■■ the share of perhaps ■■■ men in five hundred to be ■■■ assessor during his whole life, and that the chance of being favoured or ■■■ by a succeeding ■■■ ■■■ he himself shall be have ■■■ that office, is proportionally small; and that the very little which can possibly be saved in his part of the tax, by unjustly enhancing that of the proprietaries, is a matter next to nothing: the governor certainly ■■■ have ■■■ ill an opinion of mankind, ■■■ to believe these temptations can be sufficient to induce a commonly ■■■ man to forsake himself, and assessor are seldom men of the meanest characters for integrity. But surely, a security that all the peers in Britain think ■■■ with regard to the equity of taxation on their estates, might be confided in by ■■■ proprietaries; unless ■■■ people here are much more depraved than we ■■■ possibly conceive them to be.

Our argument, that, if all the estates in Britain and her colonies now bear or must bear a tax to free the proprietary estate from encroachments, that estate itself ought ■■■ to be exempted, the governor calls ■■■ invidious and ungrateful insinuation" and asks "is there nothing ■■■ this stake? is it for a tract of unsettled country, belonging to the proprietaries of this province, that the eyes of all Europe are turned upon this continent, and such mighty preparations making both by sea and land? or, gentlemen, ■■■ you think ■■■ if the enemy ■■■ suffered to keep up fortifications in any private estate whatsoever within the limits of this province, you could preserve your estates, or the English nation its dominions? what end then can such insinuations serve, but ■■■ cool the ardour of his majesty's good subjects in recovering the country unjustly taken from them, ■■■ if they were contending for a thing of ■■■■ quence, which is but ■■■ much the opinion of many amongst us, raised and confirmed ■■■ doubt by your strange conduct." ■■■ we asserted that the proprietary ■■■ only was in danger, and argued thence, that estate alone ought therefore to pay for its recovery or security, all this strain of the governor's eloquence might then have been very just and proper but, may it please the governor, we did ■■■ there was something else of stake; we thought other estates in danger, and therefore offered a very large sum, ■■■ our share of the expense, in the bill for granting fifty thousand pounds to the king's use. But we thought ■■■ proprietary estate ■■■ as much in danger as any other estate, and ■■■ imagined it ought ■■■ pay its proportion

towards the expense of its own security. The governor it seems thinks otherwise, and because other _____ are likewise in danger, the proprietary estate ought to be exempted: and unless we will agree _____ and defend that gratia, we shall not be permitted _____ raise money for the defence of our _____, our neighbours, or our sovereign's dominions. This is our present situation, and we cannot help it: for the proprietary instructions _____, it _____ unalterable as the laws of _____ Medes and Persians. But let _____ known to them, and to all. It is not our insinuation, invidious, as it may seem to the governor, and ungrateful _____ his _____, that cools the ardour of his majesty's good subjects; but if any thing cools that ardour, it must be _____ fact insinuated, the proprietaries claiming that invidious and odious distinction, of being exempted from the common burdens of their fellow-subjects. If there be any who think the _____ is contending for a thing of no consequence, it must be those who refuse to contribute their share, and not _____ who offer largely—and that opinion in others, if such an opinion there be, must be raised and confirmed by the governor and proprietaries' strange conduct and not by ours.

The governor says, we lay to his charge a pretended estimate (of the expense of cutting the roads) of which he is totally ignorant, having never seen nor heard of one. Is it possible that the governor can have forgotten it? he told us in his message of the eighteenth of March, that he had _____ appointed _____ to reconnoitre the country, mark out where such roads might _____ conveniently be made, and make report to _____ of their proceedings, with _____ estimate of the expenses that would attend the opening and clearing them. On the application of the governor, in that message, the _____ sent up a bill, giving twenty-five thousand pounds to the king's use, wherein, among other things, the clearing of road for the king's service _____ provided for. But, may it please the governor, did the commissioners never comply with their instructions, and make that estimate? or, if they made it, did the governor never lay it before the house? 'tis _____ we have not that estimate _____ in _____ possession: it was returned again to the governor; but _____ all remember the _____ and that it was eight hundred pounds. If it was indeed, as the governor says it might possibly be, "only some men's private opinion," yet it was an estimate, and sent to us by the governor: whether made by the commissioners _____ by others, _____ have not said (though we think _____ by the commissioners) nor is it _____ trial, however, _____ have remaining in the house a subsequent letter from one of _____ commissioners, to the secretary, dated May the third, which says, "We _____ you a draught of the road, both to the waters of the Yohiogani and to the Camp, with all the principal places marked that occurred to us, with the amount of the charges of laying out both, and _____ estimate of the expense of opening and bridging the road _____ the Yohiogani from the Tuscarora mountain; that to the Camp will not cost so much in proportion to its length, because it is less hilly; but we expect amendments upon it, _____ to _____ into the other _____ top of Sideling hill, and avoid two crossings of Juniata, and also to cut off several miles between the Devil's _____ and the Camp. _____ roads will leave _____ of fifteen hundred pounds; for it is impossible _____ tell what expense unexpected occur-

rences will arise to." By this it appears, that an _____ was made by the commissioners and that the governor either "saw on heart of it" _____ probable, since he sent down this very letter to the house; _____ least he must have heard of the second estimate, contained in this letter, that "both roads would leave little of fifteen hundred pounds." The house however voted still to bear the expense of cutting both roads, though the first sum _____ nearly doubled, and the refusal of their _____ by the governor would make it more difficult to be complied with. We have also in our hands another letter from the _____ commissioners, dated fifteen days after the former, wherein after more experience in the work, he makes a third estimate, judging that the "expense of opening both roads will be little under two thousand pounds." This estimate _____ governor must surely have "seen or heard of," since the letter is _____ himself, and by him laid before us. After all these estimates gradually rising from eight hundred to two thousand pounds, the design of opening _____ of the roads _____ dropped, the intended breadth of the other _____ reduced _____ think it is intended length shortened, and even that shorter _____ completed: and yet though it was supposed _____ had paid _____ thousand pounds in money and provisions, we were given to understand that five thousand pounds more was wanted. Had we not _____ to be surprised at this, and to suspect some extravagance in the management.

But the governor is pleased to tell us, not only that we charged him with _____ estimate that he never saw, but likewise that we "charged him with a demand that he never made." We happen, however, to have the original letter from his commissioners, which he laid before the house on the ninth of August, wherein are these words: "Shippensburg, August 8, 1755.—Honoured Sir, We have appointed a meeting of the commissioners for the roads leading to the Ohio, at this town, to-day, in order to fall _____ measures to provide money for the payment of the labourers, &c. employed in the service of the roads; and we have thought of this expedient (with submission, to your honour's better judgment) that _____ persons should be appointed by _____ honour to bring up money, and _____ be satisfied with _____ settlement of the accounts. We cannot at present inform your honour of the just _____ of money that will be wanted for the _____ purpose, but we think it will _____ five thousand pounds. As the people _____ much in want of money, we shall be glad how soon the money _____ be sent, &c. _____ letter was signed by the six commissioners, and sent down to the house by the governor: to what end, unless that _____ might furnish him with _____ required? yet _____ knows nothing of this demand, and is pleased to say, "it could not have been then made by any one, because the _____ counts were not come in," as if a demand in part was a thing impossible, before a settlement. The accounts however are _____ length come in, and under examination, _____ _____ be seen, what cause we shall have _____ commend the governor's or the commissioners' frugality: and we hope we shall not be backward to do _____ justice.

The governor's judgment of our motives _____ gage in this work of opening the roads, _____ to us a very uncharitable one, but we hope to find more equitable judgment elsewhere. We _____ obliged to him, however, _____ owning that we _____

engage in it all. For he is pleased to lay it down as a maxim that we are very wicked people, he has shown in other instances, when we have done any good, that he thinks it no more injurious to us to deny our facts, than to deny the goodness of our motives. He would however think himself ill-used if any part of his zeal for that affair ascribed to the measures directed him; and in a view of accommodation by the road the lands of the proprietaries' purchase, and by that means increasing the value of their own expense.

The governor is next pleased to tell us, "that we have taken great pains to infuse into the minds of the people, particularly the Germans, that the government have designs to abridge them of their privileges, and to reduce them to a state of slavery. That this will alienate their affections from his majesty's government, and destroy that confidence in the delegates, which, at this time, is particularly and render all the foreigners among very indifferent to the success of the French attempts upon this continent, as they cannot be in under them, than we have taught them to expect from the king's government." And a little lower he tells us, "that we scruple not to stir up his majesty's subjects against his government, forgetting all duty to our sovereign, and all decency to those in authority under him. These are very heavy charges indeed! But can the governor possibly expect that any body will believe them? Can he even believe them himself? We can indeed truly say it with confidence, and the governor, if he please, call it "our usual confidence," that there is a dutiful, loyal, and affectionate people in any prince on earth, than are the people, not only of this colony, but of all the other British colonies in America, to the best of kings, his present majesty, and we cannot therefore forbear to say that this charge is a virulent calumny, destitute of all truth and probability. But what must we do to please this kind governor, who takes so much pains to render us obnoxious to our sovereign, and odious to our fellow-subjects? Must we bear silently all these abuses? 'tis too hard. But if we deny his accusations, and prove them false, this he calls, "forgetting all decency to our governor; and if we complain of his treatment, that is, "stirring up his majesty's subjects against his government." No; may it please the governor, we make a wide distinction between the king's government, and the governor's conduct; and we have reason. Every deputy-governor is not the prince, and some are very indifferent representatives of him. Every dislike of a governor's behaviour is not a dislike of government; nor every censure of a governor, disaffection to the king. And indeed the more a people love their prince, and admire his virtues, the less they must esteem a governor who acts unlike him.

That there is a design in the proprietaries and governor, to abridge the people here of their privileges, is no secret. The proprietaries have avowed it in their letter to the house, dated London, March 2. 1741. The doctrine that it is necessary, is publicly taught in their *Brief State*; and the governor himself has told us, that we have more than is suitable for a dependant colony. It is these proceedings that give jealousy to the people, but do not, however, alienate their affections from his majesty's government, though they may from the proprietaries. Their "confidence in the crown" is

as great as ever; but when the delegates of power are continually abusing and calumniating the prince, it is no wonder if they "confidence in such delegates."

The governor can think of liberty to tell us, "up majesty's subjects against his majesty's government, forgetting all duty to our sovereign;" and yet if we only him, that the difficulties he wish, are owing to those causes, which indeed have no existence, but to his own of and abilities for station. He takes it extremely amiss, and says, "we forget all decency to those in authority." We are apt to think there is likewise decency due to the assembly, as a part of the government; and though we have not, like the governor, had a courtly education, but plain and must be very imperfect in politeness, yet we think we have chance of improving by example. Skill and abilities to govern, apprehend full to the share of few, they may possibly be acquired by study practice, but infused with a commission; he may without them be able and able in other affairs, and a very good and honest in general. But those who stir up his majesty's subjects against his government, and forget all duty to their sovereign, as the governor says we do, be traitors and rebels, a character, that includes the highest folly with the greatest wickedness. The world will judge which of these charges is most decent, as well as true, and we shall leave it to their judgment.

The governor is pleased to repeat the charge of our "taking upon us great and mighty powers" and to say, "you call upon me to particularize them. I shall gratify you." We apprehend it rather to gratify himself; for lest these particulars should seem to be brought in improperly, the governor says, we call upon him for them. We cannot find any such call in our message: but if there were, it was a very unnecessary one; for the governor so accustomed us to find some of these charges in almost every message, and so delights in renewing them, after repeated refutations, that we might have expected them as matters of course. You have created a paper currency of your own, &c. This stale charge was fully refuted in our message of the seventeenth of May last, and now repeated without taking the least notice of that refutation. You pay your own wages out of the provincial money, when the law requires and provides for their being paid in another manner. This charge is premature, as we have not yet paid ourselves any wages out of any money. We gave the governor, indeed, five hundred pounds out of this provincial money, though the law requires and provides for his being supported by his expenses of public-houses, fees, &c. but that he might be sure of being right, he took both. The plain state of the matter is this: by the county levy act, the commissioners and assessors are directed "to adjust and settle the sum and sums of money which ought of necessity to be raised yearly, to pay for representatives' service in general assembly, and to defray the charges of building and repairing of court-houses, prisons, work-houses, bridges, and causeways, and for destroying of wolves, &c. and to lay a tax for these purposes." But other acts of assembly having directed that the provincial money, arising from the loan-office and excise, "shall be disposed of as the assembly of this province shall direct and appoint," former assemblies have, for many years past, paid provincial

charges, and public salaries out of that provincial money, and among others, their own small wages. Hence it happened, that the wages being otherwise paid, the commissioners and assessors found no necessity of raising a tax for that purpose, and therefore have not done it, being no more obliged to do it without such necessity, than we are building court-houses when they have them already built, or repair them when they need no repairs; or pay for wolves' heads when none are killed. As to the other charges of not keeping the borrowers in the loan-office strictly up to yearly payments as law required, we beg leave to say, we think this house is strictly accountable for the faults of their, any more than the governor for the faults of his predecessors; nor that every forbearing to execute law is properly dispensing with law. We were the executive power, and governments are greatly chargeable with the offence. For our parts, whom the governor is pleased to load with charge, we did in May last expressly order the collectors of their quotas, and diligence to collect the outstanding quotas, and, to quicken them, drew nearly for the same: but as a severe execution of law would in our charge have been extremely injurious, as this evil had been almost imperceptibly growing, we gradually stole upon the assemblies in a long course of years; and as a sudden sale of all delinquent to recover their respective quotas, would have been the ruin of many; and no depreciation of the money or other consideration, inconvenience has followed the forbearance, we conceive that former trustees and assemblies, who gained nothing to themselves by this indulgence of the people, though not free from blame, deserve a less severe censure than the governor is disposed to bestow upon them. The charge perhaps amounts to little more than this, that they did not exact from the people the payments that by law they ought to have exacted; which the governor calls dispensing with a law; they are not, however, chargeable with exacting money from the people which by law they had no right to exact, as we apprehend the governor does, in the fees for marriage licences, by which many thousand pounds have been drawn from the inhabitants of this province. If this be not dispensing with law, 'tis making law, and we presume the governor alone has no more right to do the one, than the assembly alone the other. The last of this string of charges, 'that we have taken upon us to administer the affirmation to our clerk, and several of our members not quakers' is a total mistake in point of fact. As an assembly, we disclaim any right of administering an affirmation or an oath; and have never administered an oath or affirmation to our clerk, or any member: but whenever an oath or affirmation is administered in the house, it is done by a justice of the peace. And our members are always qualified according to law.

The governor is pleased to say, "we have often mentioned what we have done to promote the success of his majesty's arms under general Braddock." We own that we have often mentioned this, but we have been forced to it by the governor's asserting as often in his messages, contrary to known fact, that we had done nothing, and would do nothing of that kind. But it seems we take to ourselves the services of particular men,

in which, the governor says, we had no hand; and adds, "that had we in time opened the proper roads, raised men, and provided carriages, and necessary provisions for the troops, we might now have been in peaceable possession of fort Duquesne." We beg leave to ask the governor, the body no share in what is done by its members? has the house no hand in what is done by its committees? has it no hand in what is done by virtue of its own resolves and orders? was it not, many weeks before the troops arrived, voted five thousand pounds for purchasing fresh victuals, and other necessities for their use? did we borrow money on our credit to purchase those provisions when the governor had rejected our bill? will the governor deny this, when he himself once charged it upon us as a crime? were not the provisions actually purchased by our committee, the full quantity required by the commissary, and carried by land to Virginia at our expense, even when they were wanted? did the army ever want provisions, till they had abandoned or destroyed them? were there even now some scores of tons of it lying at fort Cumberland and Conegochoing? did the governor ever mention the opening of roads to us before the eighteenth of March, though the requisition was made to him by the quarter-master-general in January? did we not in a few days after send him up a bill to provide for the expense, which he refused? did not the governor proceed nevertheless to appoint commissioners, engage labourers to open the road, whom we afterwards agreed to pay out of the money we happened to have in our power? did the work ever stop a moment through any default of ours? was the road ever intended for the march of the troops to the fort? was it not merely to open a communication with this province for the more convenient supplying them with provisions when they should be arrived there? did they wait in the least for this road? had they not many men as they wanted, and many from this province? were they not more numerous than the army they went to oppose, even after the general had left near half his army fifty miles behind him? were not all the carriages they demanded, being hundred and fifty engaged, equipt, and sent forward in a few days after the demand, and all the creek, many days before the army ready to march? with what face then, of probability, can the governor undertake to say, "that had we in time opened the proper roads, raised men, and provided carriages, and necessary provisions for the troops, we might now have been in peaceable possession of fort Duquesne?"

The governor is pleased to doubt our having as we mention; we are therefore, in our own vindication, under a necessity of quoting to him some parts of them; and will show him the originals whenever he shall please to require it. The general's secretary, in his letter of the tenth of May to one of our members (who, in pursuance of a resolve of the house for the service of the army, waited on the general at Frederic, and there occasionally undertook the furnishing of wagons, which he performed with the assistance of some other members of the assembly, and for that, and other services to the troops, received the thanks of the house at his return) says, "you have done us great service in the execution of the business you have kindly undertaken; and indeed with-

out it, I don't see how the service could have been carried on, as [redacted] expectations from Maryland [redacted] seems to nothing." And again, in his letter of May the fourteenth, "the general orders me to acquaint you that [redacted] obliged to you, for the great care and [redacted] with which you have executed the business you undertook for him. At your [redacted] he will with pleasure discharge the service [redacted] may have enlisted in the forces under his command, or any others for whom you may think a discharge; [redacted] [redacted] that you would for that purpose [redacted] him their names." And again, in his letter of May the twentieth, "I have only time to thank you once more, in the name of the general and every body concerned, for the service you have done; which has been conducted throughout with the greatest prudence and most generous spirit for the public service." The general's own letter, dated the twenty-ninth of May, mentions and acknowledges "the provisions" given by the Pennsylvania assembly " [though the governor will allow us to have had "no hand" in it] and says, "your regard for his majesty's service, and assistance to the present expedition, deserve my sincerest thanks" &c. colonel Dunbar writes, in his letter of May the thirteenth, concerning the present of refreshments, and carriage horses sent up for the "subalterns," "I am desired by all the gentlemen, whom the committee have been so good as to think of in so genteel a manner, to return them their hearty thanks." And again, on the twenty-first of May, "your kind present is now all arrived, [redacted] shall be equally divided to-morrow between sir Peter Halket's subalterns and mine, which I apprehend will be agreeable to the committee's intent. This I have made known to the officers of both regiments, who unanimously desire me to return their generous [redacted] their most hearty thanks, to which be pleased to add mine, &c." and sir Peter Halket, in his of the twenty-fourth of May, says, "The officers of my regiment are most sensible of the favours conferred on the subalterns by your assembly, who have made so well-timed and so handsome a present. At their request and desire I return their thanks, and to 'be acknowledgments of the officers, beg leave to add mine, which you, I hope, will do me the favour for the whole to offer to the assembly, and to assure them [redacted] we shall on every occasion do 'hem the justice due for so measurable and well judged an act of "generosity." There are more of the same kind, but these may suffice to show, that we had "some hand in what was done," and that we did not, as the governor supposes, deviate from the truth, when, in our just and necessary vindication against his groundless, cruel, and repeated charge, "that we had refused the proper, necessary, and timely assistance to an army sent to protect the colonies," we alleged "that we had supplied that army plentifully with all they asked of us, and more than all, and had letters from the late general and other principal officers, acknowledging our care, and thanking us cordially for our services." If the general ever wrote differently of us to the king's ministers, it must have been while he was under the first impressions given him by the governor to our disadvantage, and before he knew us; and we think with the governor, that if he had lived, he was too honest a man not to have retracted those mistaken accounts of us, and done us ample justice. [redacted] governor concludes with telling us that

"if our [redacted] examined [redacted] fifteen years past, in them will be found more frivolous controversies, unparalleled abuses of governors, and undutifulness to the crown, than in all the rest of his majesty's colonies put together." The minutes are printed, and in many hands, who may judge on examining them whether any abuses of governor and undutifulness to the crown are to be found in them. Controversies, indeed, there are too many; but as our assemblies are yearly changing, while our proprietaries, during that term, have remained the same, and have probably given their governors the same instructions, we must leave others to guess from what root it is most likely that these controversies should continually spring. As to frivolous controversies, we never had so many of them as since our present governor's administration, and all raised by himself; and we may venture to say, that during one year, scarce yet expired, there have been more "unparalleled abuses" of this people, and more representatives in assembly, than in all the years put together, since the settlement of the province.

We are now to take our leave of the governor; and indeed, since he hopes no good from us, nor we from him, 'tis time we should be parted. If our constituents disapprove our conduct a few days will give them an opportunity of changing us by a new election; and could the governor be as [redacted] and as easily changed, Pennsylvania would, we apprehend, deserve much [redacted] the character he gives it, of an unfortunate country

*Extract from the votes of assembly, Sept.
29, 1755.*

The speaker read to the house a paper containing some authorities relating to the rights of the commons of Great Britain over money bills "and in support of the bill passed by this house for granting fifty thousand pounds for the king's use, so far as the said bill relates to the taxing the proprietaries' estate within this province: and the speaker being requested by the house to let the same be entered upon the minutes, consented thereto; and it accordingly followed in these words, viz.

The governor, in his message of the thirteenth of August [redacted], asserts, "That as our proprietaries (being hereditary governors of this province) have no vote in choosing representatives in the assembly, therefore it is not consistent with the British constitution that their estates here should be [redacted] to pay taxes." And in answer to the privilege we claim, of having our bills [redacted] supplied as they are tendered, without alterations, the governor in his message of the twenty-fourth [redacted] says, that this claim is not warranted by charter; to which the house very justly replied on the twenty-ninth, that the charter gives us all the powers and privileges of an assembly, according to the rights of the free-born subjects of England, and as is usual in any of the king's plantations in America. If the free-born subjects of England do not exercise this right, and it is not usual in any of the king's plantations in America, then we are in the wrong to claim it, and the governor is in the right in denying it."

The governor in the beginning of his [redacted] has solemnly promised, "that he would upon all occasions be studious to protect the people committed to his charge in all their civil and

religious privileges." So far then, as these privileges belong to the people and their representatives, from known facts and unexceptionable authorities, so far the governor must have failed of his promise in the protection we have a right to from the duty of the station, and our charters, and the laws of this province.

The practice of the other plantations in America, and particularly very late instances of his majesty's colony of New York, on money bills, are against the governor; but I shall choose to confine myself to the rights of the house of commons, to which we are entitled by our provincial charter, confirmed by a law passed in the fourth year of the late queen Anne, for ascertaining the number of members of assembly, &c. which enacts, in the words of the charter, "That the representatives chosen and met according to the directions of that act, shall have power to speak, and other their officers: and shall be judges of the qualifications and elections of their own members, as upon their own adjournments, appoint committees, prepare bills in order to pass into laws, impeach criminals, and redress grievances; and shall have all other powers and privileges of assembly according to the rights of the free-born subjects of England, as is usual in any of the queen's plantations in America." The house of commons then do claim by the use and usage of parliament, the right of determining their own elections, and consequently, and necessarily, the right of the electors to vote; and in virtue of this right it appears by the journals of the house of commons, vol. XIII, p. 296, that no peer of the realm hath any right to give his vote in the election of any member to serve in parliament. The commons again unanimously resolved in the beginning of the sixth and last parliament of king William III., with an additional resolve, "That for any lord of parliament, or any lord lieutenant of any county to concern themselves in the elections of members to serve for the commons in parliament, the same is a high infringement of the liberties and privileges of the commons of England." The same unanimous resolve appears in the first parliament of queen Anne, and in the beginning of every parliament to the ninth of king George, where our journals end. And it is a standing order of the house of commons, "That no peer hath a vote in the election of a commoner." Nevertheless the commons assert, "That the grant of all aids to the king is by the commons, and that the terms, conditions, limitations, and qualifications of such grants have been made by the commons only." And upon a particular order to a committee, 30 Car. II., that they should prepare and draw up a state of the right of the commons in granting of money, how those rights might be asserted: the house of commons, upon that report, resolve, "That all aids and supplies, and aids to his majesty in parliament, are the sole gift of the commons; and all bills for the granting such aids and supplies, ought to begin with the commons; and that it is the undoubted and sole right of the commons to direct, limit, and appoint in such bills, the ends, purposes, considerations, conditions, limitations, and qualifications of such grants, which ought not to be changed or altered by the house of lords." The house of commons have been always extremely careful of this valuable right, as upon the bill for an additional duty on coffee, &c. 1st of William and Mary, and the bill for the

sale of the forfeited estates in Ireland, and indeed upon all occasions upon money bills.

Upon the bill for appointing commissioners to examine and state the public accounts, "the house of commons were fully sensible, and thought the bill so useful at that time, as could not be sufficiently expressed; yet nothing could be of greater importance to the public than the maintaining the just and distinct rights and privileges which each estate of the kingdom enjoyed according to the constitution; that the lords had many high privileges to recommend their lordships to the favour of their prince, and to support their figure in government, but the commons besides that of giving money and granting aids, their undoubted and inherent right, and therefore every thing intrenched upon that the ought to be allowed he extremely jealous of."

As it would be dangerous to proceed in the subject before without authorities, I shall add the continuation of Rapin's History of England, by Tindal, vol. iii. 231, and the record relating to the same controversy between the houses of lords and commons, as it lies upon the journals of the commons in the fourth session of king William's second parliament.

Tindal says, that the lords added a clause to the money bill up by the commons, by which they taxed themselves. That clause disagreed to by the commons, *namine contraitante*, as an encroachment on their rights in the article of giving money, the lords to desire a conference thereupon; to whom they represent "That the commons had disagreed to the clause added by their lordships to the money bill, as being a notorious encroachment upon the rights of the house of commons to order and settle all matters relating to the giving of money, which their ancestors had been so jealous of; that they thought it a diminution of this their fundamental privilege to give their lordships any reason for supporting it; and their lordships, after a long debate, resolved to recede from the said clause by so great a majority, that the house did not divide upon it—and so dropped the clause."

On the journals of the house of commons it appears, that the lords had agreed to a bill, entitled, "An act for granting to their majesties an aid of shillings in the pound, &c. with an amendment. Provided, nevertheless, that and every the peers that are to be rated by virtue of this act, for their offices or personal estate, shall be rated by Thomas earl of Pembroke, lord privy seal. George marquis of Halifax, William earl of Devon, lord steward of the household, Charles earl of Shrewsbury, &c. &c. any five of them, and not otherwise; and shall be subjected to the imprisonment of him or their persons, any thing in this act contained to the contrary notwithstanding. Provided also, and it is hereby declared, that several and taxes which the lords and peers of this realm shall be liable, by virtue of this act, shall be received by a collector to be nominated by the peers: which said collectors shall cause the same to be paid into his majesty's receipt of exchequer, on or before the twenty-fifth day of March." And the question being put, that the house do agree with the lords in the said amendment, it passed in the negative. And, by order of the house, sir Thomas Clarges reported he reasons to be offered at a conference with the

lords, "That the right of granting supplies to the crown is in the commons alone as an essential part of their constitution, and the limitation of all such grants, as to the matter, manner, measure, and time, is only in them, which is so well known to be fundamentally settled in them, that to give reasons for it, has been esteemed by our ancestors to be a weakening of that right, and the clause sent down by their lordships was a manifest violation thereof," and an amendment being proposed to leave out "violation," and insert "invasion" instead thereof, the same was, upon the question put thereupon, agreed unto by the house.

And after several conferences, Mr. attorney-general reported, "that their lordships did not insist upon their proviso" [See editor's note at the end of this article.]

From these records and other authorities, as well as known facts, I apprehend it clearly appears, that the lords do not vote in the election of a commoner to serve in parliament, nor intermeddle therein. And that the house of commons have a right in money bills, that they are to be assented to or rejected by the lords without alterations or amendments, I will now add such other acts and authorities as may further show, that the king's fee-farm rents, the palaces of Saint James's Whitehall, Somerset-house, &c. and the regalities of Wales and Chester, and even the civil list revenue, are, and have been occasionally subjected to be charged by acts of parliament for the public uses.

It is well known, that before the revolution the whole standing income of the state was in the power and disposal of the crown; and was called the revenue of the crown; there was then no distinction of what was to be allotted to the king's use, and what for the service of the public, by which means the king might employ what part he thought fit for his own designs, and employ no more than he pleased for the purposes of the nation; accordingly it was found, after the restoration, the public had been constantly embarrassed, and immense sums very often sunk without being applied to the uses for which they were granted; it was therefore wisely concerted, after the revolution, for the security of the nation from perpetual misapplications of the public money, to allot a separate income for the king, of the king's household, and the support of his dignity, which is now called the civil list, and to put the rest of the public revenues entirely under the command of the parliament.

It was not till the ninth and tenth of William III., that the civil list was settled upon the king for life, though he had earnestly desired it, and had subjected that revenue to be charged to the uses of the war. And on the opening of the third sessions of the third parliament, when they did settle it upon him during his majesty's life, the king said to them, "that the revenues of the crown had been so anticipated by his consent for public uses, that he was wholly destitute of means to support the civil list." Nevertheless, by an act of the twelfth and thirteenth of William III., three thousand seven hundred pounds a week (as the necessity of the public affairs required it) was taken out of that revenue "to be applied and disposed of to and for the public uses during his majesty's life." By an act granting an aid to her majesty by a land-tax, passed in the first year of the reign of queen Anne, for carrying on the war against France, the receivers of the chief rents of

her majesty, and of the queen dowager, and the receivers of any persons claiming under the crown were enjoined under severe penalties, to deduct their taxes four shillings in the pound out of the said rents, and in like manner the fee-farm rents of the crown, the palaces of St. James's, Whitehall, Windsor-castle, and Somerset-house, &c. are subjected to the land-tax through all the succeeding acts of parliament. By an act of the first of king George, entitled, An act to enable his majesty to grant the regalities of North-Wales, South-Wales, and county of Chester to his royal highness the prince of Wales, &c. is enacted, "that it shall and may be lawful for the king's most excellent majesty, by letters patent &c. to give and grant unto his said royal highness all the said honours, castles, &c. within the counties of Flint, Denby, Montgomery, Carnarvon, &c. the county palatine of Chester, and every or any of them, do belong to his majesty, his heirs and successors, &c. so nevertheless that the same do not extend to any taxes, aids, or revenues whatsoever granted or to be granted to the crown by parliament, to or for any public use or whatsoever; to have and to hold the said honours, castles, lordships, manors, messuages, lands, tithes, tenements, rents, hereditaments, possessions, and premises, so to be granted as aforesaid unto him the said prince, and his heirs, kings of Great Britain; subject, nevertheless to such annual and other payments and incumbrances as are legally charged thereupon, or usually satisfied out of the revenues of the same." And upon a computation of the revenues of the late prince of Wales, in the year 1736, when the land-tax was at two shillings in the pound, the deductions were five thousand pounds a year for the land tax upon fifty thousand pounds, the six-penny duty on the civil list, and the fees payable at the exchequer, about two thousand pounds more, so that his net revenue on the fifty thousand pounds a year allowed him by the king, would not amount to more than forty-three thousand pounds yearly besides his duty of Cornwall. By this estimate we see the royal family, for what they received out of the civil list, were subject to parliamentary taxes, until it was otherwise provided by particular acts; and indeed by the seventh and eighth of William III., chap. 17. act 12. it is enacted, "That no letters patent, granted by the king's majesty, or any of his royal predecessors, &c. shall be construed or taken to exempt any person city, borough, &c. or any of the inhabitants of the same, from the burden and charge of any sum or sums of money granted by the act; and all non obstante, in such letters patent made, or to be made, in bar of any act of parliament for the supply or assistance of his majesty, are declared to be void, and of none effect." If upon these, and many other authorities which might be adduced to the same purpose, it should appear, that the revenues of the crown, and of the royal family are, and have been, subjected to the national taxes of Great Britain, as well as the estates of the peers and of the mother-country from whence we derive ourselves and constitution, it will be difficult to conceive any good reasons why our proprietaries, and their great estate in this province, alone, of the majesty's subjects, be exempted from the payment of taxes for the defence and security of their estates. But our governor is pleased to us, that if we tax them at all, it is as proprietaries.

mities of their country; these too must at length submit and leave the colony their predecessors had cultivated and settled with honour under a milder administration.

NOTE.—The editor takes the liberty of adding this note the following authorities.

The commons in 1700 having tacked or consolidated the land-tax and Irish-forfeiture bills, and the lords having returned the same with certain amendments, the commons rejected the said amendments for the following reasons, viz. "for that all aids and supplies granted to his majesty in parliament, are the sole and entire gift of the commons; and as all bills for the granting such aids and supplies begin with the commons, so it is the undoubted and sole right of the commons to direct, limit, and appoint in such bills, the ends and purposes, considerations, limitations, and qualifications of such grants; which ought not to be changed or altered by your lordships. This is well known to be such a fundamental right of the commons that to give it for it has been deemed by our ancestors to be a weakening of that right." &c., and though the lords at a farther conference strenuously contended for their amendments, in opposition to these reasons; the commons adhered, and left the bill with their lordships to adopt in the gross, or reject as they thought fit. After which the reader need not be told what was the result.

Extract from the report of a free conference between the two houses, Feb. 13. 1702-3.

That the ancient manner of giving aids was by indenture, to which conditions were sometimes annexed: the lords only gave their consent, without making any alteration; and this was the continued practice, until the latter end of Henry the fifth and, in some instances, until Henry the seventh. That in the famous record, called the indemnity of the lords and commons, settled by the king, lords, and commons, a solemn debate in 9 Henry IV., it is declared, that all grants and aids are made by the commons, and only assented to by the lords. That the modern practice is, to omit the lords out of the granting, and name three parties only to the enacting clause of aids granted to the crown; to which their lordships have always concurred, and no conferences departed from their attempts of petty alterations in bills relating thereunto. That if then all aids be by the grant of the commons, it follows that the limitation, disposition, and manner of account, must likewise belong only to them.

Report of a committee of the assembly, September 23.

In obedience to the order of the house we have considered the proprietaries' eleventh, twelfth, and twenty-first instructions, relating to money bills, and offer such remarks thereon as occur to us.

The preamble to the eleventh instruction forth, "That the interest money arising from the loan of money of credit in this province, was intended by the proprietaries, and the house of representatives, to be applied for the public service of this province, and of the inhabitants thereof, and should therefore, under the direction of the same power that raises it, be carefully applied to those purposes, as a greater security to the people against misapplications, than if it was intrusted

only to one branch of the legislature; and such was the ancient practice in their province." That the interest money was intended to be applied for the public service of the province, and of the inhabitants thereof, is undoubtedly right: but that it was ever the "practice," or that there was ever even a single instance of the proprietaries or their deputies having a vote in the application of the interest money, is absolutely denied. Their consent to the disposition is not required in any of our loan acts from the beginning to this day, the constant tenor of those laws being, that the "interest money shall be disposed of as the assembly of this province shall from time to time order and direct." Their consent was never asked, unless in the acceptance of presents made them out of that interest, which could not be forced on them without their consent: that kind of application they have indeed been graciously pleased to consent to from time to time, the amount of above thirty thousand pounds given to themselves out of that fund and the excise. If this was a misapplication, and we know of no other, the power they contend for would not have prevented it: for it is scarce probable they should ever disapprove or refuse to sign acts, votes, or resolves, which they thought just and reasonable.

And indeed, had these presents been always as regular as the seasons; and never intermitted, by the conduct of the governor ever so inconsistent with the public good, your committee have reason to believe, this new instruction had never been formed or thought of. But since the representatives of the people have dared to signify their disapprobation of a governor's measures, by withholding those tokens of their esteem, affection and gratitude, which were constantly given when they found themselves well governed: this is thought necessary to be enforced. Not for the greater security of the people against misapplication: for they never complained of any but to compel your continuance of those presents to compel an addition to them, for they are thought too small: and to compel the payment of what they are pleased to call the arrears of such presents to any governors from whom they have at any time been withheld. For if the people's money cannot be disposed of for their own benefit, without the proprietary or his deputy's consent, the passage of the bill, or the approbation of the resolve, be facilitated, as the proprietaries were pleased to tell us on a former occasion, by a regard to their interest, that is by putting the same time into their private pockets whatever share of the public money they shall be pleased to insist on, under the specious name of salary or support: though by the quit-rents, and by their other fees and perquisites, established by law or taken by custom, they have already a support much more than sufficient.

The money arising by the interest of the bill of credit, as well as that arising by the excise is paid wholly by the people. To dispose of their own money, by themselves or their representative, is our opinion, a natural right, inherent in every man or body of men, antecedent to all laws. The proprietaries pay no part of this money, and therefore have no right to a share in the power of disposing of it. They might reasonably claim a right to a negative in the disposition of every man's private fortune, and for the same reason to wit, the man's greater secu-

erty, and to prevent misapplication; nay, the reasons would be stronger, bodies of men not being generally so apt to misapply their money, as single prodigals. The people have never complained that any such misapplication has been made by their representatives. ■■■■ contrary, they have shown their approbation of the conduct of the assembly in ■■■■ tender point, by long repeated annual elections of the same men to the same ■■■■ in the ■■■■ office. They have always ■■■■ their money disposed of, from time to time, for the advantage and honour of the public, or for the king's immediate service, and they had reason to be contented with the disposition. The public credit has been constantly preserved, and every ■■■■ who served the government, has been always duly and readily paid: ■■■■ if this new-claimed negative in the proprietaries takes place, the people will not have it in their power to reward the ■■■■ that ■■■■ them, or ■■■■ pay the hire of the labourer ■■■■ works ■■■■ them, without the governor's leave first purchased; much less ■■■■ they ■■■■ allowed to support an army in England ■■■■ defend their rights, or be able to pay the expense of procuring their complaints when oppressed. And to prevent their doing this, we conceive, another main view of this instruction.

In short, it does not appear to your committee that this extraordinary instance of the proprietaries' ■■■■ of the people's money, ■■■■ prevent its being wasted by their own representatives, was for the people at all necessary. Those representatives themselves are a part of the people, and must bear a share of their burdens. For their own sakes, therefore, as well as to recommend themselves to ■■■■ and regard of their constituents, it is highly probable they will execute that trust, ■■■■ they always have done, with justice, prudence, and frugality: with freedom to the king's service, and grateful generosity to governors that sincerely seek their welfare, and do not join with the proprietaries to oppress them. But this instruction might perhaps be necessary to extort those grants ■■■■ governors which they had been pleased to style voluntary, and render that certain, which ■■■■ depended ■■■■ the good-will of the people; for how else ■■■■ the proprietaries be ■■■■ of that share of those grants, which, by their private contracts sometimes made with their governors, is (if report ■■■■ true) to be paid to themselves?

The proprietaries ■■■■ however, willing to permit the renewal of the eighty thousand pounds, which is now ■■■■ sink in a few years, and even the adding forty thousand pounds more, the whole to be emitted on loan, provided, that the eleventh instruction be complied with, "and half the power of applying the interest reserved ■■■■ them; and provided, that all rents and quit-rents due, or to be due or payable ■■■■ them, be always paid according ■■■■ the ■■■■ of exchange ■■■■ times of payment between Philadelphia and London, or some other ■■■■ port provision enacted ■■■■ thereof, as was done by a former act." Your committee cannot help observing here, that the proprietaries' tenderness for their ■■■■ interest appears in this instruction much stronger than their care for that of the people. Very great emoluments arise to them by emissions of paper-money on loan, and the interest money is a tax they are clear of. They ■■■■ therefore willing ■■■■ quantity ■■■■ increased; but whatever advantages they ■■■■ from it, they are ■■■■ to suffer no disadvan-

tage from any occasional depreciation. For they will always be paid their rents and quit-rents, according to the rate of exchange between Philadelphia and London. By the original agreement, those rents and quit-rents were to be paid in sterling money (or the value in coin current) to the proprietary receivers in the province. ■■■■ bill of exchange besides the sterling sum conveyed, included all the freight, risk, and expense of conveying that sum in specie to London. Now we conceive the people ■■■■ not, ■■■■ can in justice or ■■■■ can be, obliged ■■■■ their rents to London and pay them ■■■■ to the proprietaries. If the proprietaries should ■■■■ fit ■■■■ ■■■■ China they might ■■■■ justly ■■■■ to their demand the rate of exchange between London and Canton; this therefore is extortion, and ought ■■■■ allowed in any future act, ■■■■ any equivalent made for it. For had that equivalent been really given as a matter of justice, and not extorted as purchase money for the law, it would have been extended to the rents of private landlords, as well as those of the proprietaries. Besides, the great ■■■■ to be yearly remitted to them in London, for which no returns come back to the country, naturally tend to raise the exchange; and even put it in the power of their agents to raise it occasionally, just before the periodical times of payment (to the great injury of the people) and to lower it again at their pleasure; a dangerous power this, if no inconvenience can arise to themselves by the rise of a change ■■■■ depreciation of money in every country when it happens is a ■■■■ calamity. The proprietary estate ought not to be exempt from it, at the expense of all other estates. There are many fixed ground rents, and other rents arising in the province belonging to the people, and due to private estates. These rents have ■■■■ much right to be considered, and their deficiency, in case of depreciation, provided for out of the public funds, as those of the proprietaries. But of these they ■■■■ no care, so that ■■■■ secured it appears, however to your committee, that all rents in the country ought to be on the same footing, with regard to any loss by the depreciation of its currency, since that is less likely ■■■■ to happen which it is the interest of all to prevent.

Your committee now come ■■■■ the twenty-first instruction, by the preamble of which it is innuendated, as if acts for provincial ■■■■ had been common in this province, and that the proprietary's estate had been always exempted in such acts; whereas the truth ■■■■ that there never were but two or three, and ■■■■ in the early times of the province, when the proprietary's circumstances were low, his affairs incumbered, and the quit-rents so small, as to be insufficient for his support; and therefore they ■■■■ not only exempted from any part of such tax, but duties and license fees were granted to help them. For more than sixty years, as the excise and interest money have been sufficient for support of government, no provincial taxes have been levied (in this very instruction, ■■■■ lower, they themselves acknowledge none have been raised in ■■■■ time) and the proprietary estate has vastly increased; those license fees ■■■■ also vastly increased, and yet they still received them. ■■■■ that their estate should now be exempt from provincial taxes, raised for the defence of that very estate, appears to us extremely unreasonable. During the distress of the family, there ■■■■ likewise a voluntary subscrip-

tion among the people to pay the proprietary's taxes in England; they may even thence justly claim a right of having their expenses borne by the public whenever they cross the seas. But when those aids were granted to the old proprietary, he had a much better claim to them than his sons; for he undertook to act as an agent and advocate for his people, in England; to defend and secure their rights and privileges; not like his successors, to abolish and destroy them.*

The instruction further says, "since the expiration of those former laws, no aid hath ever been granted by the assembly to them as proprietaries. As proprietaries, what right have they to aids? — they — hereditary governors of the province? — while they have indulged themselves with — almost — residence in England, remote from their country, and greatly to its inconvenience and prejudice, have — the — — — — — bles constantly supported their deputy, sent by the proprietaries to do what they ought themselves to have done in person: though he was often an imperfect deputy, retained — those powers — — — — — should always subside and — present in every government for the common welfare? but they are pleased to cry, 'they have voluntarily and cheerfully expended several considerable — of their own money for the advancement of the province.' This they said likewise to a former assembly, and the answer was, 'We — — — — — unacquainted with those expenses: let the — — — — — be laid before us, and whatever — — — — — appears to have been made for the service of the province shall be allowed, and repaid with thanks.' Those accounts — — — — — yet appeared; and till they do, we — — — — — they ought not — be made — — — — — foundation of any claim — — — — —"

They any farther, "that they had ■■■ to suspect that the assembly would deviate so much from the former usage, as to pretend, by any act of theirs, to charge the proprietary estate in this province with the burden of any taxes." Amazing! if the assembly deviated from the former usage, by taxing their ■■■ estates, and those of their constituents (their usual funds failing) why should they not deviate in the same manner in taxing the proprietary estate? and what ■■■ the particular merits of ■■■ family, that when the whole British nation, when every estate in the kingdom, as well ■■■ in this province, is taxed, towards the recovery and defence of their estate in Pennsylvania, that very ■■■ alone should be exempted, and they so confident of its right ■■■ exemptions. ■■■ ■■■ no reason to suspect the assembly would attempt ■■■ tax it?

But it seems that the assembly have represented them in an untrue light, ■ if unwilling to ■ the public, by contributing towards the defence of the country, though no application had ever once been made to them for that purpose. How far they are placed in ■ untrue light ■ this account, will, ■ presume, appear before we finish this report. ■ appears too, by a report of a former committee. They likewise say, "no application ■ ever once made to them for their assistance to- wards the defence of the country." Heretofore

it was thought that the country was best defended by maintaining peace and a good understanding with the Indians. This was done from year to year by expensive and repeated presents. The proprietary reaped great advantages from this good understanding and these presents, in bargains with the Indians for lands. The expenses grew yearly more and more heavy, and repeated humble applications were made to the proprietaries, that they would be pleased to bear a part, but without success. They vouchsafe indeed an answer to the last application, but it was to reject it with the utmost pride and scorn, claiming an inherent right of exemption of their estates from all public charges whatsoever, in virtue of their being governors as well as proprietaries. And the sixty thousand pounds bill is called an attempt of the assembly by "an act of theirs," to charge the proprietary estate, as if they had presumed to do it alone by their own authority. The assembly could possibly think of taxing a proprietary estate, without the consent of the proprietaries by their deputy; the assembly therefore another humble application to the proprietaries for their consent, as a thing so reasonable; and the very style of it was, "we pray that it may be enacted." But that prayer could not be granted though the province was on the brink of ruin. And yet it seems the proprietaries were not "unwilling," though their deputy declared they have expressly restrained him by the words of his commission! the bill however is stigmatized with the characters of "most unjust and extraordinary." Thus it is, when we judge in their own cases. These gentlemen think it unjust to tax their estates, though all the world thinks otherwise. As provincial taxes had not been usual it might be so far extraordinary, but the mode of taxation by no means extraordinary, being the same with that of raising our county rates and levies, long used and approved by the province. And the taxing of proprietary lands is used both in New Jersey and Maryland; and located unimproved lands have formerly been taxed in this province. That such lands taxed every where from the first settlement of America, conceive it would have tended to the increase of the inhabitants, and the greater strength of the colonies, for then such quantities of land would not have been monopolized and lain dormant, but people would only have obtained settlements, and been seated close together.

But the proprietaries would have it understood that it is not for their own sake only, that they object to the fifty thousand pounds ■ which ■ refused, ■ the sixty thousand pounds act the ■ passed. They ■ tenderly concerned for the estates of others. No part of the lands of a delinquent, who refuses or neglects to pay his tax ought, in their opinion, ■ ■ sold for payment, though lands in America are by act of parliament made liable to ■ sold for discharge of debts, and were almost always so here by the law of this province. If lands, ■ parts of land may be sold to satisfy private, why ■ public debts? and though ■ be unusual in England, it has long been ■ practice, as we are informed in several of the colonies, particularly in New England. ■ they say, "a tax of ■ shilling in the pound on the whole value, is what ■ ■ laid, nor can possibly be paid, in any country." St ■ ■ may not a country in imminent danger give a twentieth part of their ■ to save the other nine-

* This was evicted in several instances, particularly in answer to the lords of trade's objections to the act of privileges as a freeman, in the year 1705; in which he secured their lordships, that the act was agreeable to the great charter which the English were in; "we went so far (i.e. England to America) to lose a title of it."

teen? is it impossible even to give a half or three-fourths, to save the other ~~half~~ ^{one} quarter? may they not even give nineteen parts to save the twentieth? the proprietary's gift of five thousand pounds, they afterwards say, is twenty times more than their tax, if fairly and equally assessed, could by that bill have ~~amounted to~~ ^{been made}. So, it is possible to give the whole twenty parts; but it has always been understood, that estates are not to be taxed to the full value they might singly sell for. In the same bill it was provided, that located unimproved lands should not be valued ~~at~~ ^{at} more than fifteen pounds per hundred ~~when it is well known,~~ ^{when it is well known,} the proprietary's lowest price ~~of~~ ^{of} lands ~~the frontiers~~ ^{the frontiers} is fifteen pounds ten ~~shillings~~ ^{shillings} per hundred; and that the located unimproved lands in their manors are, some of them, valued ~~at~~ ^{at} three ~~or~~ ^{or} four hundred pounds per hundred; they may therefore well say that "if that tax had ~~been~~ ^{been} fully ~~valued~~ ^{valued} ~~lands, they have~~ ^{lands, they have} amounted ~~to~~ ^{to} many times the sum;" but then their ~~assertion~~ ^{assertion} is somewhat inconsistent, viz. ~~the bill laying this tax was~~ ^{the bill laying this tax was} "most unjustly calculated for the purpose of putting it in the power of the ~~proprietary~~ ^{proprietary} to tax up to the ~~value,~~ ^{value,} and to ease other persons, by taxing them ~~so~~ ^{so} lightly as only to make up the residue of the fifty thousand pounds, in which case, much the greatest part of the burden might have been laid on the proprietary estates alone." The value of the proprietary estate has long, for prudential reasons, been kept a profound secret, and the proprietaries have lately given five thousand pounds rather than submit it to inquiry of the assessors. But your ~~infinite~~ ^{infinite} conceive ~~light may be thrown on~~ ^{light may be thrown on} that head, from this part of the instruction compared with the fifty thousand pounds. By this bill their wild, unsurveyed, or unlocated lands, which are many millions of acres, were not ~~to~~ ^{to} be taxed at all, though they never sell any of them for less than fifteen pounds ten shillings per hundred acres. Their taxable estate consists chiefly ~~of~~ ^{of} located (though uncultivated) tracts and manors, and in the reserved quit-rents arising from ~~lands they have sold.~~ ^{lands they have sold.} These ~~and~~ ^{and} tracts are generally choice, being of the best lands, picked ~~of~~ ^{of} every ~~purchase~~ ^{purchase} from the Indians by their surveyors, before the office ~~opened,~~ ^{opened,} and laid by for a market, ~~not to be disposed of till all the surrounding lands are sold~~ ^{not to be disposed of till all the surrounding lands are sold} ~~wetted.~~ ^{wetted.} This ~~increased their value prodigiously,~~ ^{increased their value prodigiously,} ~~that they~~ ^{that they} ~~now,~~ ^{now,} ~~with another~~ ^{with another} valued at more than three hundred pounds per hundred: yet by ~~this bill,~~ ^{this bill,} they ~~are~~ ^{are} to be taxed as worth more than ~~potents~~ ^{potents} per hundred. And they own, ~~by~~ ^{by} ~~this bill,~~ ^{this bill,} "their quit-rents ~~are~~ ^{are} to be taxed in the same ~~as~~ ^{as} ~~her estates,~~ ^{her estates,}" consequently as great an abatement to be made in the valuation. And yet by this same bill, under this very moderate valuation of their estate, they say, ~~it would have been in the power of the~~ ^{it would have been in the power of the} ~~to have~~ ^{to have} ~~much the greatest part of the burden on their estates~~ ^{much the greatest part of the burden on their estates} alone. Now much the greatest part of fifty thousand pounds may ~~be~~ ^{be} ~~forty thousand pounds,~~ ^{forty thousand pounds,} ~~will say (for moderation) make it~~ ^{will say (for moderation) make it} only thirty thousand pounds, and that sum might have been raised by ~~this bill,~~ ^{this bill,} on the proprietary estates, in ~~years,~~ ^{years,} by a tax of one shilling in the pound, i. e. fifteen thousand pounds per annum. ~~The~~ ^{The} ~~lands~~ ^{lands} fifteen thousand pounds are three hundred thousand, consequently their estates at that

low valuation are worth three hundred thousand pounds. But if you multiply that valuation by 20, to bring it nearer the truth, those estates must ~~amount to~~ ^{amount to} six millions; exclusive of their wild lands as aforesaid. If this computation be too high, they may be able hereafter to show its mistakes. At present we conceive the consequences fairly drawn from facts and their own premises. And yet this their enormous estate is, by their instructions to be attempted, ~~all their fellow subjects groan under the weight of taxes for its defence!~~ ^{all their fellow subjects groan under the weight of taxes for its defence!} it being the first attacked in the press, war, and part of ~~it~~ ^{it} on the Ohio, the prize contended for by the enemy. For though they, towards the end of this instruction, pretend to be "more ready and willing ~~to~~ ^{to} bear a just proportion along with their ~~any necessary~~ ^{any necessary} for the defence of the province;" yet this appears clearly to be a mere pretence, since they absolutely except ~~their quit-rents,~~ ^{their quit-rents,} their located unimproved lands, their fines, ~~purchase money they have at interest;~~ ^{purchase money they have at interest;} that is, in a manner, their whole estate, as your committee know of ~~they have~~ ^{they have} ~~to be taxed,~~ ^{to be taxed,} a ferry-house or two, a kitchen and a dog-kennel.

~~Unimproved lands should not, in the proprietaries' opinion, pay taxes, because "they yield no annual profit."~~ ^{Unimproved lands should not, in the proprietaries' opinion, pay taxes, because "they yield no annual profit."} This may deceive people in England (where the value of land is much ~~a stay)~~ ^{a stay)} they ~~are~~ ^{are} ~~unacquainted with the nature of landed estates in growing plantations.~~ ^{unacquainted with the nature of landed estates in growing plantations.} Here new lands, without cultivation, without fencing, or so much as cutting down a tree, being reserved and laid by for a ~~market till the surrounding lands are settled,~~ ^{market till the surrounding lands are settled,} improve much more in yearly value even than ~~at interest upon interest.~~ ^{at interest upon interest.} Thirty years ago, the best and richest lands near the proprietary's Conestogo manor were worth and sold for about forty pounds per hundred acres. That manor ~~then laid out and reserved, containing~~ ^{then laid out and reserved, containing} seventeen thousand acres, and now the ~~of that very manor, which, though so long located, have never yet been cultivated, will~~ ^{of that very manor, which, though so long located, have never yet been cultivated, will} ~~for three hundred and fifty pounds per hundred acres: which is~~ ^{for three hundred and fifty pounds per hundred acres: which is} nine for one, ~~eight hundred per cent.~~ ^{eight hundred per cent.} Advance! can a state thus producing twenty-five per cent. per annum on the prime cost, be, with any propriety, called ~~"a~~ ^{"a} ~~yielding no annual profit?"~~ ^{yielding no annual profit?"} is it not a well known practice in the colonies, ~~to lay~~ ^{to lay} ~~great~~ ^{great} ~~of ready money for lands, without the least intent of cultivation, but merely to sell them again,~~ ^{of ready money for lands, without the least intent of cultivation, but merely to sell them again,} hereafter? would people follow this practice if they could not make more profit of their money in that way than by employing it in improvement of land in trade, or in putting it to interest, though interest in the plantations is from six ~~to~~ ^{to} ten per centum. Does not such land, though otherwise unimproved, improve continually in its value? how mean and unjust is it then, in those gentlemen to attempt ~~to conceal the advantages of this kind of estate, and screen~~ ^{to conceal the advantages of this kind of estate, and screen} ~~from taxes, by lurking under the ambiguous and deceitful~~ ^{from taxes, by lurking under the ambiguous and deceitful} ~~of unimproved lands, and lands yielding no annual profit!~~ ^{of unimproved lands, and lands yielding no annual profit!}

Meekly unjust, indeed, in this instance, do they appear to your committee; who cannot ~~ob-~~ ^{ob-} ~~tain~~ ^{tain} ~~that the proprietaries, knowing their~~ ^{that the proprietaries, knowing their} ~~inclinations to~~ ^{inclinations to} ~~their estates,~~ ^{their estates,} ~~load~~ ^{load} ~~those of the people, from thence suspected the people might be equally~~ ^{those of the people, from thence suspected the people might be equally} ~~and intend, by the fifty thousand pounds bill, to ease their estates,~~ ^{and intend, by the fifty thousand pounds bill, to ease their estates,} and ~~those of the proprietaries.~~ ^{those of the proprietaries.} The ~~way they, appears~~ ^{way they, appears} ~~unjustly cal-~~ ^{unjustly cal-}

culated, for the purpose of putting it in the power of persons, wholly chosen by the people, to tax our estates up to the full value therein mentioned, and to ease other persons by taxing them so lightly, as only to make up the residue that might be wanted to complete the fifty thousand pounds. In which case the persons chosen by the people might have laid by much the greatest part of the burden upon our estates alone." Had they intended to raise the greatest part of the tax of fifty pounds the proprietaries' estate, would the house readily have accepted of five thousand pounds in lieu of their share of that tax? but why this suspicion of the assembly? What instance of injustice can the proprietaries charge with, that give ground for such a supposition? if they are capable of such intention, and endeavour to get iniquity established by a law, must they not be unjust and dishonest of men? the answer, it is true, is chosen by the people; they always were so by our laws; and let a man's estate be ever so great, he has but one vote in the choice of them; but have the proprietaries no friends in their province? what is become of all their dependants and expectants; those in place; those hoping for places; the thousands in their debt; the mortgagors at their mercy? will some of these, out of love, or hope, or fear, vote for honest men that may take care the proprietary is not oppressed by the weight of an unjust tax? could the assembly be certain, that the whole people were as wicked, as to join in choosing and trusting men of dishonesty merely to wrong the proprietary? are there no laws in the province against perjury; are not the assessors by law to be sworn or affirmed to themselves and others impartially; and have they not always been so as men of note for probity and justice? what a dark prospect a man's own house affords him, when he can from thence form such ideas of the hearts of a whole people! a people famous throughout the world, for the justice and equity of their laws, the purity of their manners, their humanity and hospitality to strangers, their affection to their late honoured proprietary, their faithfulness in their manufactures and produce, and uprightness in all their dealings; and to whose virtue and industry these very gentlemen owe all their present greatness!

The proprietaries are pleased farther to say, that the laying taxes on the real value of the few-acre, and the sale of land for the payment of taxes, contrary to the laws and statutes of Great Britain. Your committee cannot find that any laws or statutes were ever made in Great Britain to regulate the mode of laying taxes in the plantations, and if there are none such, our bill could not be contrary to what never existed. In Virginia the taxes are laid on slaves, and paid in tobacco; and every colony has its own mode of taxation, suited to its circumstances, almost all different from each other as well as from that used in England. But different from, and contrary to, we conceive it be not and things; otherwise many of our laws, even those which have been approved by home, and received the royal assent, are contrary to the laws of England. as before, the laws of England themselves, make lands liable to pay debts in colonies; and therefore to sell them, or a part of them, to pay public debts, is contrary to, but conformable with, the laws of England.

But the proprietaries "cannot find the quit-rents reserved to the crown, in any of the other American colonies, have ever been taxed upwards the raising any supplies granted in those colonies; and indeed quit-rents generally so small (meaning the king's quit-rents) suppose, their own surely are large enough) that little or no land tax, would be due or payable on them, if arising in Great Britain, &c." If your committee are rightly informed, the king's quit-rents in the other colonies, are applied to public purposes, generally for the service of the colony that raises them. When our proprietaries shall think fit to apply those arising here in the same manner, we believe no assembly will attempt to tax them. The smallness of the parts, we cannot conceive to be a good reason for not taxing the whole. Where every man worth less than twenty shillings a year is exempt from taxes, he who enjoys a thousand a year might, as our proprietaries plead to be excused, for that his income is only twenty thousand shillings, each of which shillings is within the exemption by law. In the whole, though what arises from each estate be a great sum, their quit-rents must amount to a very great revenue; and their speaking of them in the diminutive terms of very small quit-rents or acknowledgments, is only and deceive. They say property, and property should pay for its own preservation. They ought therefore to be taxed to the defence of the country. The proprietaries indeed say, a land-tax was unnecessary, there are other ways of raising money. They would doubtless choose any way in which their estate could not be included. But what those many other ways Britain, an independent state, can lay infinite duties on all foreign wares, and imported luxuries. We are suffered little foreign trade, and almost all our superfluities are sent us from Britain itself. Will she permit us to discourage their importation, by heavy imposts? or to raise funds by taxing her manufactures? a variety of excises and duties serve only to multiply offices and officers, and to make a part of the people pay for another part who do choose to pay. No excise or duty was ever a fair and equal property. The fairest, as the proprietaries themselves have acknowledged, is a poundage on all real and personal estate, according to its value.

We are now to hear of the generosity of the proprietaries, who, as they say, "were so far from desiring not to contribute to the defence and support of his majesty's rights and dominions, that immediately on the first notice of the defeat of general Braddock, they had ordered up their receiver-general, to pay five thousand pounds free of charge towards the defence of the said province." We presume to ask, why, when they knew the assemblies were continually offered to give money, and the bills in which it was offered as constantly rejected: why did they not unmanly make their governor, and at the same time set an example of zeal for the common cause by a generous gift on their part, before they heard of that defeat? why not as soon as they knew he was sent to America, why not on Washington's defeat, or before his first expedition, as ever this province was attacked, they learn that the enemy had a fort in it! but the order is sent, immediately on news of Braddock's defeat; the date of the order will show that it is a month after that

news arrived in England. ■■■ it was immediately ■■■ they had advice, that ■■■ governor had refused a grant of fifty thousand pounds to the crown ■■■ the ■■■ of the proprietaries' province, because their ■■■ taxed in the bill, alleging restrictions from them on ■■■ head; against which all the world exclaimed an universal odium was falling on their heads, and the king's wrath justly dreaded; then it was, that the worst order issued. And yet as soon as their fears subided, it was sincerely repented, and every underhand step taken to get the act, in which their gift was fixed, disapproved at home; though if they had succeeded, when ■■■ bills emitted ■■■ abroad, and in the hands of the public, many of the poor soldiers, who had received them in pay for their services, ■■■ have been ruined, and multitudes of others greatly injured. And after all, this free gift, to be immediately paid, is not yet paid, though more than a year is elapsed since the order was given; and contracts, entered into by the commissioners in confidence of receiving that money, are yet unsatisfied, to the loss and disappointment of many, and great detriment ■■■ the service.

However, if we will have a land tax, they are pleased ■■■ form a bill for us, ■■■ at ■■■ to direct what clauses shall be in, and what shall not be in, this violating the ■■■ essential right of the commons in a ■■■ constitution; and with this particular injunction, that the tax shall be laid for no more than ■■■ year; and shall not exceed four shillings in the pound ■■■ the income: which, ■■■ situate estates at twenty years' purchase, is about a fifth of a twentieth, or in plainer words, a hundredth part of the value. Perhaps this may be well enough in times of tranquillity; but when a province is invaded, must it be given up to the enemy, if a tax of the hundredth penny is not sufficient to save it? Yes, that is ■■■ present situation; for the proprietaries' instructions are, in none, ■■■ unalterable. Their ■■■ is bound to observe and enforce them, and must see the king's province perish before his eyes, rather than deviate from them a single tittle. This ■■■ have experienced within a few days, when advantage being cruelly taken of our present unhappy situation, the prostrate condition of ■■■ bleeding country, the knife of the savages ■■■ her throat, our soldiers ready to mutiny for want of pay and necessaries, our people flying in despair from the frontier for want of protection, the assembly was couped (like Solomon's true mother) to wave her right, ■■■ after our money bills, abridge our free grant to the crown by one half, and, in short, ■■■ receive and ■■■ a law ■■■ agreeable to our judgments, but such as was made for us by the proprietary instructions, and the will and pleasure of the governor's council; whereby our constitution and the liberties of our country are wounded in the most essential part, and even violated and destroyed. We have reason to confide, however, in the justice of our sovereign and a British parliament, that this tyranny shall not long submit; and we hope no time will be lost in making ■■■ proper ■■■.

In fine, we ■■■ say, in justice to the house, that "the proprietary's charge against the ■■■, bly, as "being inclined by their authority to tax the proprietary estate disproportionately, &c." is, to our knowledge, groundless and unjust. They had as little inclination as authority to

wrong him. They have not, ■■■ seems, authority enough to oblige him to do justice. As to their inclination, they bear, every one ■■■ them, ■■■ maintain, the character of honest men. When the proprietaries shall be truly willing to bear an equitable part of the public burden; when they shall renounce their exorbitant demand of rent as the exchange shall then be; ■■■ money which they have exacted from the ■■■ assemblies of this province, and sincerely repent of their extortion, they may then, and not till then, have some claim to the same noble title.

The proprietaries have for a long series of years made a great secret of the value of their total land and revenue. By accident the following ■■■ thematic paper is fallen into ■■■ hands, and will serve ■■■ a ground-work ■■■ which the reader may be enabled to form ■■■ idea of the value of that estate in Pennsylvania. It is a copy of an original paper drawn by Mr. Thomas Penn himself many years ago, and endorsed

"My estimate of the province, T. Penn."

ESTIMATE.

Pennsylvania Cr.

1. LANDS granted ■■■ my arrival are very near 270,000 acres, of which not 10,000 have been paid for: more than of old grants are remaining unpaid: ■■■ £41,450 0 0
2. The rent on the said grants is 550^l sterling a year, which at 30 years' purchase, and 165 per cent. exchange, is 14,150 0 0
3. The old rent, 430^l. a year sterling, at ditto, is 10,216 0 0
4. Lands granted between roll and the first article are 570^l. a year sterling, which at 30 years' purchase, and 165 per cent. ■■■ 14,410 0 0
5. To the difference between 430^l and 570^l. for arrears of rents which may be computed at half the time of the other arrears, that is 11 years at 165 per cent. 2,700 10 0
6. Ferries let out on short leases, the rents being 40^l. a year, are worth 1,000 0 0
7. Lands settled in the province, for which no grants are yet passed, except a few since the above account was taken, not less than 400,000 acres, which at 15^l. 10s. amounts to ■■■ 0 0
8. The rent at ■■■ halfpenny an acre is 833^l. 6s. ■■■ a year sterling, reckoned as above, ■■■ 27,500 ■■■

■ 184,976 ■ 0

MANORS.

1. Conestogoe, 65 miles from the city, 13,400 acres at 40^l. per hundred acres ■■■ 5,360 0 0

Carried ■■■ £193,636 ■ ■

PENNSYLVANIA—APPENDIX.

	Brought over	Pennsylvania	
2 Gilbert's, 25 miles from the city, 3200 acres at 70¢. per hundred acres		2,240	0 0
3 Springfield, 12 miles from the city, 1600 acres at 100¢. per hundred acres		1,600	0 0
4 Highlands, 35 miles from the city, 2500 acres at 90¢. per hundred acres		750	0 0
5 Springtown, 10 miles from the city, 10,000 acres at 35¢. per hundred acres		3,500	0 0
6 Vincent's, 10 miles from the city, 30,000 acres at 100¢. per hundred acres		7,000	0 0
7 Richland's, 35 miles from the city, 10,000 acres at 100¢. per hundred acres		1,500	0 0
8 About 20 in several counties, mostly 500 acres each; 1000 acres at 40¢.		1,000	0 0
9 Spruget's-hury, 307 acres in the north of the town, 50 acres at 30¢.		1,035	0 0
10 Back of the said land 15 acres at 10¢.		1,500	0 0
11 Lot in the bank at the north end of the town, 200 feet at 3¢.		600	0 0
12 A front and bank lot between Vine and Sanson street, 100 feet at 6¢.		612	0 0
13 Bank lot between Cedar and Pine street, 204 feet at 3¢.		612	0 0
14 Front lot on the of Cedar, 100 feet at 3¢.		306	0 0
15 Ditto between Cedar and Pine street, 160 feet at 2¢.		320	0 0
16 Bank lot between the same streets, 40 feet at 2¢.		80	0 0
17 Marsh land near the town, 600 acres at 10¢.		1,800	0 0
18 Ditto 200 acres at 15¢ sterling rent and 165 per cent. in		330	0 0
19 Lands within the draft of the town, at least 500 acres 250 nearest Delaware at 15¢ per acre		2,750	0 0
20 250 nearest Schuylkill, at 10¢ per acre		2,500	0 0
21 Omitted—Streiper's tract in Bucks county, 35 miles, 5000 acres at 25¢.		1,250	0 0
22 The of the above manors and lands being 77,072 res., at a halfpenny per 20 years purchase, and 165 per cent exchange, is		13 0	
		252,122	2 0
The government be calculated at no less than was to have been paid for it, 11,000¢.		18,150	0 0
at 165 per cent. is			
Carried		252,122	2 0

This calculation no notice is taken of the thirds reserved on the bank lots (a copy of the patents J. Penn has by

	Brought over	Pennsylvania. Cur.	
show the nature of them*)		252,122	2 0
nine tenths of the provinces remains undisposed of.			
Three fifths of all royal mines is reserved in the grants, and in all grants since the year 1732. One fifth of all other mines, delivered at the pit's mouth without charge, is also reserved.			
No value is put on the proprietor's right to escheated lands; and, besides these advantages, several offices in the proprietor's gift considerable value.			
Register General, about £ 200			
Naval officer,			
Clerk of Philadelphia, 400			
— Chester,			
— Bucks, 300			
— Lancaster, 200			
Besides several other officers of low value These are only guessed at.			
The above paper has no date, but by circumstances in it, particularly there being no value put on the thirds of the bank lots, because they were not then fallen in; and by the valuation put on the lands (which is very different from their present value) it must have been drawn while Mr. Thomas Penn resided in Pennsylvania and probably more than twenty years ago since which time a vast addition has been made to the value of the reserved lands, and a great quantity of land has been disposed of, perhaps equal to all preceding.			
We must therefore add to the above sum of 252,122. 2s the following articles, viz.			
1. For the increased value of the lands of the Conestogoe manor now valued at 100¢. per hundred acres, and in the above estimate valued only at 100¢. per hundred, the said increased value being 100¢. per hundred on 13,400		48,340	0 0
2. For the increased value of Gilbert's manor, worth 100¢. per hundred acres,		10,560	0 0
3. For ditto on Springfield manor, now worth 500¢. per hundred acres,		6,500	0 0
4. For ditto on Highland manor, now worth 350¢. per hundred acres,		8,000	0 0
5. For ditto on Springtown, now worth 400¢. per hundred acres,		36,500	0 0
6. For ditto on Vincent's manor, now worth 100¢. per hundred acres,		53,000	0 0
7. For ditto on Richland's, worth 100¢. per hundred		43,500	0 0
8. For ditto on the 30 tracts, now worth 300¢. per hundred acres,		26,000	0 0
Carried over		240,722	2 0

*) By these patents, at the end of fifty years, the proprietor was to have one third of the value of the land and the buildings, and other improvements erected on

Pennsylvania

Brought over £15,675 53 12 0

we can form any judgment concerning its value, it must however be continually increasing.

There is another article, we are greatly at a loss about which is the interest of money arising to the proprietors from securities on land possessed by persons unable to make present payment. These pay not only quit-rent for the land but interest for the purchase money. This interest is thought to be a very considerable income but we cannot estimate it. The three lower counties are Delaware which are a distinct territory and govern it from the province of Pennsylvania, and held by a different title, are also a very valuable part of the proprietary estate. The right of value should be put at the same as the present difficulty to say.

Total in Pennsylvania currency £15,675 53

to sterling about ten millions.

But on the whole, it appears pretty clearly, that in setting all the articles containing the valuation of land, yet unsold, and unappropriated within our patent, and the income and rents to be hereafter received, and allowing for any small over-valuation in their present reserved lands and incomes [though it is thought if any be it will not be found to exceed the under-valuation in other instances] there cannot remain less than a million of property which they now at this time have in Pennsylvania.

And in that province there are about twenty thousand families to each of which can with advantage there does not being more than three hundred pounds of property, if so much, which multiplied by twenty thousand gives six million pounds for the whole property of the people there.

The proprietaries then have in present possession a property there at least equal to one sixth of that of the people. They ought therefore to pay the same proportion of the taxes.

That the reader may form some judgment of the profits made by this monopoly of land in America, in favour of the house of Pennsylvania shall just mention that the land first purchased of the Indians within the limits of their grant the Indians of late years have somewhat raised their price; and for the last great purchase in 1734, which was of about millions of acres, they demanded (how much do you think?) no less than two thousand dollars, amounting to seven and sixpence currency each, to seven hundred and fifty pounds.

The land so bought the proprietor has the moderation of sell (except the of it) in markets for himself at so low a price as 15l. 10s.

per hundred acres which will produce £1400 0 0
Deduct the purchase money 700 0 0

Remains profit 1000 0 0

Reserve the profit of a tenth of the seven millions of acres, reserved in 1700 to be sold hereafter at an advance of at least three hundred pounds per hundred acres.

And also the quit-rent to be reserved on seven millions of acres at a halfpenny sterling per acre, 112000 0 0 which at 100 per cent and 100 years purchase amounts to 401,200 0 0

1000 0 0

But the Indian cannot be compared with the sale of so much land at once the proprietors have since been obliged to discharge a part of the debt by selling the land at a great loss, and to convert the same to the Indians, who when they are disposed to sell it, may possibly demand two thousand dollars, more than which the above account must then have credit.

One would think that where such great numbers are bought of the poor natives there should be an occasion for extraordinary art to overreach them in order to take more than is granted, and that the war occasioned by such injuries should be drawn upon the innocent inhabitants, those who were the cause of the war, if they did not as justice they ought to be the sufferers. It is at least true, would not it be a considerable part. Whether this has ever been the case is now a subject of public inquiry.

But let us see how the land bought of the Indians pennyworth of the natives by the proprietors is lost to the crown to the king's subjects. To give the reader some idea of the price of the land, the first purchase of land, is that made by the proprietor of Maryland, who paid for the land dearer than his majesty's lands in Virginia or Carolina, but as good as not better countries, we shall present him with a genuine account, stated under the hand of the proprietors receiver-general, obtained with great difficulty by the purchaser of two tracts of land, some time after he had paid his money, who on more particular consideration of the sum paid compared with the quantity bought he imagined he had paid too much. The account is as follows.

John Fisher in right of Jacob Sel Th.

T. 1. and 22 acres 33 perches, in Lancaster county granted to said John by warrant of March 19, 1712, £15 12 1
Interest from 1st March, 1732, to 18th March, 1742, at 10 years 12 days 10 11 4

100 0 0

19th March 1732 paid 15 0 0

Pennsylvania. Cur

Brought over £ 90 3 3

Interest from 19th March, 1742, to
20th February, 1747, is 4 years, 11
months, 1 day, - - - 26 11 11
Quit-rent to next month is 15 years,
13l. 4s. 7d. sterling, at 85 per cent. 24 9 ■
141 4 8

John Fisher in right of Thomas Cooper. Dr.

To land, 268 ■■■ in Pextang town-
ship, Lancaster county, granted by
■■■ of ■■■ January, 1743, to
■■■ Cooper, 11 10 9
Interest from 1st March, 1737, to 8th
January, 1743, is ■ years, 10
months, 9 days, - - - 14 11 9

19th January 1743, paid 56 2 6
7 10 0

Interest ■■■ January, 1743, to
■■■ February, 1747, is 4 years, 1
month, 11 days, - - - 11 19 10
Quit-rent to next month is 10 years.
W 11s 8d sterling, at 85 per cent 10 ■ 7
70 18 11

20th February, 1747

£ 141 4 8

70 18 11

212 3

10 0 Transfer, &c.

■ 212 13 7

Philadelphia, ■■■ February, 1747.

Received of John Fisher, two hundred and
twelve pounds, three shillings and seven pence, in
full for ■■■ acres in Pextang township, granted
by warrant of ■■■ March, 1742, ■ Jacob Job,
and for ■■■ acres in the same township, by war-
rant of ■■■ January, 1743, ■ Thomas Cooper,
both in the county of Lancaster

£ 212 3 7

10 0 fees

212 13 7

N B. The quit-rent in full to 1st March, 1747.

For the honourable proprietaries,
LYNFORD LARDNER, Receiver Gen.

The purchaser not being skilled in accounts,
but amazed at the sum, applied to a friend to ex-
amine this account who stated it over as follows,

John Fisher in the right of Jacob Job, Dr.

1742 To 423 acres, 50 per. of
19th March, land, in Pextang county,
Lancaster, granted to
said Job by warrant dat-
- this day - - - £ 65 12 1
By cash paid that day 15 0 0

Carried forward £ 50 12

To interest on 50l. 12s.

Brought over £ 50 12

1d. from the 19th March
1742, ■ 20th February,
1747, being ■■■ years
eleven months and ■
day - - - 14 16

To five years quit-rent for
said land at one halfpen-
nysterl per acre per ann.
viz. from March, 1742,
the time the land was
surveyed (for quit-rent
ought not to be paid be-
fore) to March, 1748,
amounting in the whole
to 4l ■ 4s. sterl ■ eigh-
ty five per ■ the re-
charged in the account
delivered - - - 5 0

February, 1747.

■■■ due on Job's right £ 73 ■

John Fisher in right of Thomas Cooper, Dr

1743. To ■■■ of land in
Pextang aforesaid, grant-
ed said Cooper by ■■■
rent this day - - - £ 41 10
By cash paid that day 7 10

9th January, 1743, balance due £ 34 0

To interest on 34l. 0s 9d
from 9th January, 1743,
to 20th February, 1747,
being four years one
month and eleven days. 8 7 8

To four years and two
months quit rent for said
lands, viz from January,
1743, to the 1st March,
1747, amounting in the
whole to 2l. 6s. 8d. ster-
ling, ■ eighty-five per
■■■ - - - 4 7 4

20th Feb. 1747.

Sum ■■■ Cooper's right £ 46 ■ 74

In Feb. 1747, John Fisher obtained a propri-
etary patent for the lands above-mentioned. But
by the accounts then exhibited to him, and which
he paid, he was charged on Job's right one hun-
dred and sixty-one pounds four shillings and
eight pence, which is sixty-seven pounds eight
shillings and a penny ■■■ than the above ac-
count, and also was charged on Cooper's right, se-
venty pounds eighteen shillings and eleven pence,
which is twenty-four pounds ■■■ shillings and
three pence three farthings more than the above
account of Cooper's. So ■■■ by ■■■ ac-
counts it is supposed he has paid ninety-one
pounds eleven shillings ■■■ four pence three far-
things more than could legally be received ■■■
him

The reason of such great difference in the ac-
counts are as follow, viz.

1st. That interest has been charged on the con-
sideration money for Job's land for ten years an
eighteen days, before the land was surveyed.

2d. That quit-rent has also been charged &
that time at 85 per cent.

3d. ■■■ principal and interest to the time of ■■■ and survey were added together, and that interest was charged for that total to the time ■■■ patent was granted.

4th. That interest has been charged on the consideration money for Cooper's land, for five years ten months and eight days, ■■■ the land was surveyed.

5th. That quit-rent ■■■ also been charged ■■■ that time ■■■ 85 per cent.

6th. That the principal and interest to the time of warrant and survey were added, and interest charged for that ■■■ the time the patent was granted, which is compound interest.

To these remarks ■■■ the accountant we shall only add, that ■■■ price of exchange between Philadelphia and London is ■■■ fixed, ■■■ rises and ■■■ according to ■■■ demand for bills; that eighty-five per ■■■ charged for the exchange ■■■ this ■■■ in ■■■ highest exchange that perhaps ■■■ given in Pennsylvania, occasioned by some particular scarcity of ■■■ a particular time; that ■■■ proprietor himself in his estimate reckons ■■■ exchange but ■■■ 65, which is indeed ■■■ the medium, and this charge is twenty per cent above it. That the valuing the currency of the ■■■ according to the casual rate of exchange with London, is in itself a false valuation; the currency not being really depreciated in proportion to ■■■ occasional rise of exchange: since every ■■■ of life is to be purchased in the country, and every article of expense defrayed by that currency (English goods only excepted) ■■■ as low ■■■ after ■■■ such rise of exchange: that therefore the proprietor's obliging those who purchase of him to pay their rent according ■■■ the rate of exchange, ■■■ unjust, the rate of exchange including ■■■ the risk and freight on remitting money ■■■ England; and ■■■ besides a dangerous practice, ■■■ the great ■■■ to be yearly remitted ■■■ him, put it in the power of ■■■ own agents ■■■ play tricks with the exchange ■■■ pleasure, raise it at the time of year when they are to receive ■■■ rents, by buying a few bills at a high price, and afterwards lower it by refraining to buy till they are ■■■ reasonably.

By this account of the receiver-general's, it appears we have omitted two other articles in the estimation of the proprietary estate, viz

■■■ the quit-rents of lands many years before they are granted.

For the interest of the purchase-money many years before the purchases are made.

On what pretence these articles of charge are founded, how far they may be extended, and what they may ■■■ to, is beyond ■■■ knowledge; ■■■ therefore obliged to leave them blank ■■■ we can obtain more particular information.

Although ■■■ have not in this work taken particular notice of the ■■■ falsehoods and calumnies which were continually thrown ■■■ against the assembly and people of Pennsylvania, to keep alive the prejudices raised by the ■■■ of the proprietary and his agents; yet ■■■ it will not be deemed improper to give ■■■ readers some specimen of them, we shall on ■■■ account, and as it affords additional light concerning the conduct and state of that province, subjoin a paper printed and published

here ■■■ September, 1757, by a gentleman who ■■■ the best opportunities of being acquainted with the truth of the facts he relates. Any other proof, indeed, of their authenticity can scarce be thought requisite, when 'tis known that since that time no one has ever offered to publish the least thing in contradiction; although before ■■■ a week elapsed without the newspapers furnishing ■■■ with ■■■ anonymous abuse of ■■■ colony.

To the printer of the Citizen, or General Advertiser.

SIR—In your paper of the ninth instant, I observe the following paragraph, viz. The last letters from Philadelphia bring accounts of the scalping the inhabitants of the back provinces by the Indians; ■■■ the ■■■ time the disputes between the governor ■■■ the assembly are carried on to as great a height as ever, and the messages sent from the assembly ■■■ the governor, and from the governor ■■■ the assembly, are expressed ■■■ terms which give very ■■■ hopes of a reconciliation. The bill to raise money ■■■ clogged, so ■■■ prevent the governor from giving his consent ■■■ it: and the obstinacy of the quakers in the assembly is such, that they will in no shape alter it: so that while the enemy ■■■ in the heart of the country, cavils prevent ■■■ thing being done for its relief. Mr Denny is the third governor with whom the assembly has had these disputes within a few years.

As this paragraph, like many others heretofore published in the papers, is not founded in truth, but calculated to prejudice the public against the quakers and people of Pennsylvania, you are desired to do that injured province some justice in publishing the following remarks, which would have been ■■■ you sooner had the paper ■■■ sooner to my hands.

1. That the scalping of the frontier inhabitants by the Indians is not peculiar to Pennsylvania, ■■■ common to all the colonies in proportion as their frontiers ■■■ or less extended and exposed to the enemy. That the colony of Virginia, in which there are very few, if any quakers, and none in the assembly, has lost ■■■ inhabitants and territory by the war than Pennsylvania. That ■■■ the colony of New York with ■■■ its own forces, a great body of New-England troops encamped on ■■■ frontier, and the regular army under lord Loudon posted in different places has not been able to secure its inhabitants from scalping by the Indians: who coming secretly in very small parties skulking in the woods, must sometimes have it in their power to surprise and destroy travellers, or single families settled in scattered plantations, notwithstanding ■■■ the ■■■ can possibly be taken by ■■■ government for their protection, sentinels posted round an army while standing ■■■ their guard, with ■■■ their hands, are often ■■■ and scalped by Indians. How much easier must ■■■ be for such an ■■■ destroy a ploughman ■■■ work in his field?

2. That the inhabitants of the frontiers of Pennsylvania ■■■ quakers, were in the beginning of the war supplied with arms and ammunition by ■■■ assembly, and have frequently defended themselves and repelled the enemy, being withheld by no principle from fighting; and the losses they have suffered ■■■ owing entirely to their situation, and the loose scattered manner in which

they had settled their plantations and families in the woods, remote from each other, in confidence of lasting peace.

3. That the disputes between the late and present governors and the assembly of Pennsylvania, occasioned and are continued chiefly by instructions from the proprietors to those governors, forbidding them to pass any laws to raise money, the defence of the country unless the proprietary estate, much the greater part of it, was exempted from the tax to be raised by virtue of such laws, other clauses inserted in them by which the privileges long enjoyed by the people, and which they think they have a right to, only as Pennsylvanians but as Englishmen, were to be extorted from them, under their present distresses. The quakers, who, though the first settlers, are now but a small part of the people of Pennsylvania, concerned in these disputes only as inhabitants of the province, not as quakers, and the other inhabitants join in opposing those instructions, and contending for their rights, the proprietary officers and dependents, only excepted, with a few of such as they can influence.

4. That though quakers have scruples against bearing arms, they have, when most numerous in the assembly, granted large sums for the king's use, (as they express it) which have been applied to the defence of the province, for instance, in 1755 and 1756, they granted the sum of fifty-five thousand pounds to be raised by a tax on estates real and personal; and 30,000 pounds to be raised by excise on spirituous liquors, besides near ten thousand pounds in flour, &c. to general Bradlock, and for cutting his roads, and ten thousand pounds to general Shirley in provisions for the New England and New York forces, then on the frontiers of New York; at the same time that the contingent expenses of government, to be otherwise provided for, were greatly and necessarily enhanced. That, however, to remove all pretence for reflection on their sect, as obstructing military measures in time of war, a number of them voluntarily quitted their seats in assembly in 1756; others requested their friends to choose them in ensuing election, nor did any of that profession stand as candidates or request a vote themselves at that election, many quakers refusing even to vote at all, and others voting for such as would and did make a considerable majority in the house who were not quakers; and yet four of the quakers, who were nevertheless chosen, refused to serve, and wrote letters issued for new elections, when four others not quakers were chosen in their places; so that of 36 members, the number of which the house consists, there are not at the most above 12 of that denomination, and those such as are well known to be for supporting government in defence of the country, but a few, if they were against such a measure, to prevent it.

5. That the bill to raise money, said in the above article of news, to be "so clogged as to prevent the giving of assent," was drawn in the same form, and with the same freedom from all clogs, that for granting twenty thousand pounds which had been passed by the governor in 1755, and received the royal approbation; that the real clogs or obstructions to its passing were not in the bill, but in the above-mentioned proprietary instructions; that the governor

having long refused his assent to the bill, in excuse of his conduct, on Lord Loudon's arrival at Philadelphia in March last, lay his reasons before the lordship, who was pleased to communicate them to one of the members of the house, and patiently to hear what that member, to say in answer, the governor himself being present; and that his lordship did finally declare himself fully with answers made to those, and give it as his opinion to the governor that he ought immediately to pass the bill, my instructions might have to the contrary from the proprietors notwithstanding; which the governor accordingly complied with, passed the bill on the 22d of March, and the money, being 100,000, the service of the year, had been ever since actually expending in the of the province so that the whole story of the bill's passing, the clogging of the bill by the assembly, and the obstinacy of the quakers preventing its passage is absolutely a malicious and notorious falsehood.

6. The assertion of the news-writer, "that while the enemy is in the heart of the country, cattle prevent any thing being done for its relief," is so far from being true, that, 1st. The enemy is not ever in the heart of the country, having only molested the frontier settlements by their parties. 2dly. More is done for the relief and defence of the country, without any assistance from the crown, than is done perhaps by any other colony in America; there having been, soon after the war broke out, the following forts erected at the province expense, in a line to cover the frontier, viz. Henshaw's fort on Delaware, fort Hamilton, fort Norris, fort Allen, fort Franklin, fort Lebanon, fort Henry, fort Augusta, fort Halifax, fort Granville, fort Shirley, fort Littleton, and Shippensburg fort, besides several smaller stockades and places of defence, garrisoned by troops in the pay of the province; under whose protection the inhabitants, who at first abandoned their frontier settlements, returned generally to their habitations, and many yet continue, though not without some danger, to cultivate their lands. by these Pennsylvania troops, under col. Armstrong, the greatest blow given the enemy last year on the Ohio, that they have received during the war in burning and destroying the Indian town of Kattanning, and killing their great captain Jacobs, with many other Indians, and recovering a number of captives of their own and neighbouring provinces; besides the garrisons in the forts, eleven hundred soldiers maintained on the frontier in pay, being armed and accoutred by the province, as ranging parties. And at Philadelphia fifteen iron cannon, eighteen pounders, were year purchased in England and added to the fifty that had before either mounted their batteries, ready to be mounted, besides a train of artillery, being new brass field-pieces, twelve and six pounders, with appurtenances in good order, and a magazine stored with ammunition, a quantity of large bomb-shells, and above two thousand new small arms lately procured, exclusive of those in the hands of the people. They have likewise this summer fitted out a twenty gun province ship, of war, to the of privateers, and provided of the and the neighbouring provinces, which more than any other colony to southward of New England has done. Pennsylvania also by its situation covers the greatest

part of New Jersey, the government of the Delaware counties, and great part of Maryland, from the incursions of the Indians, without receiving any contribution from those colonies, or the mother-country towards the expense.

The above are facts, consistent with the knowledge of the subscriber, who but lately left Philadelphia, now in London, nor never was a Quaker, writes at the request of any Quaker; purely to do justice to a province and people of late frequently abused in nameless papers and pamphlets published in England. And he hereby calls upon the writers of article of to produce letters of which he says, has drawn calumnies and falsehoods, or to take shame to himself.

WILLIAM FRANKLIN.

Pennsylvania Coffee-House.

London, Sept. 16, 1757.

To what is said in the foregoing letter, concerning col. Armstrong's expedition to Kittanning, it may not be amiss to add, for the information of the reader, that it was with no small difficulty the commissioners, who were joined with the governor in the disposition of the money granted for the war, obtained the employing a part of the provincial forces as rangers. They repeatedly remonstrated to the governor, that the only effectual of carrying on a war with Indians was to fight them in their own way, i. e. to send parties frequently into the Indian country, to surprise them in their hunting and fishing, destroy their corn fields, burn their habitations, and, by thus continually harassing them, oblige them either to sue for peace, or retire farther into the country. The experience of many years Indian war in New England in favour of this measure. The governor himself could but acknowledge its expediency. There were motives, however, which, with him, outweighed all other considerations, and induced him though publicly to approve, yet secretly to decline carrying it into execution. A militia law was the grand object he had in view, in which he aimed to have the nomination of all the officers. These were of course to be proprietary nominees and dependants, who, by means of their power, were to awe and influence the elections, and make a change in the assembly: for draughts of such as were most likely to give opposition might easily be made and sent to garrison the frontier. Should therefore the commissioners' scheme of carrying the war into the enemy's country, be attended with success, and a stop be thereby put to their future incursions, the governor's main pretext for a militia (which was the enabling him to defend the frontier) would of consequence have no longer any appearance of weight. The commissioners, notwithstanding, obstinately persevered in urging that parties should be sent out in the manner they recommended. The governor was at length obliged to consent and give orders to colonel Armstrong for that purpose. Under-hand however to have been taken to render this project fruitless. Small delays were given from time to time to the march of the forces, after the intention of the undertaking was publicly known (which by the bye was to have been kept a secret) that the might easily have received intelligence of our designs; moreover, such a considerable number of men added to the party rendered it highly improbable they should reach

the place of their destination undiscovered upon which depended the whole of their success. By great good luck, they nevertheless unexpectedly missed Kittanning, and succeeded above. Encouraged by this fortunate event of their first attempt, the commissioners earnestly pressed that blow might be followed by of the same kind, so that the enemy might be kept in continual apprehensions of danger. But these arguments to the commissioners to persist in their plan of operations. Inducement, with the new governor, as they had been with his predecessor, to evade a compliance.

The darling project of a militia law was of consequence than the preservation of the blood and treasure of people with whom had no natural connexion. And the result that notwithstanding the commissioners have over and over strenuously endeavoured to have parties of rangers sent again into the country they have never since been able to prevail with the governor to send them. On the contrary though they could furnish parties for the Indians, the forces have been confined within the forts, without regular military discipline (which is in fact undisciplining them for Indian war) and allowed to do scarce any thing but garrison duty. In the time the Indians have been suffered to come down between the forts, murder and scalp the inhabitants, and burn and destroy their settlements, with impunity. That a militia, had the governor such a one as he wishes could not prevent these outrages, is obvious to every of common understanding. Frequent trials of this have been made in Virginia, and other governments where militias have been long in use. The consequence of which was, that after the governor had, upon the news of any incursions of the enemy, taken the inhabitants from their several businesses and occupations, offensive farmers in the midst of harvest furnished provisions and other necessaries and marched them at a great expense, to the place attacked, it was found that the enemy were fled, and perhaps doing mischief in another part of the frontier, fifty or a hundred miles distance. The people therefore, with truth, that it would be far less expensive and inconvenient to them, to raise and pay a number of rangers to be continually employed in that service. And it is certain, that were but a few rangers properly employed, they would be more effectual in subduing such an enemy, than all the militia or regular forces on the continent of America. The sending of these against scouting parties of Indians, being, as the proverb has it, setting a cow to catch a hare.

Account of sundry of money paid by the province of Pennsylvania for his majesty's service since the commencement of hostilities by the French in North America, exclusive of the general contingent expenses of the government, which have from that time increased very considerably.

FROM THE

SENATE

Pennsylvania Cur

1751, and For provision supplied the king's forces under the command of

Pennsylvania Cur.

Pennsylvania Cur
£ 26,387 2 11

general Braddock; for opening and clearing a road towards the Ohio; and for establishing a post between Winchester in Virginia and Philadelphia, for the use of the army, at the request of the said general - - - - - £8,195 14 8

For provisions supplied the New England, and New York forces, under general Johnson - - - - - 10,000 0 0

For clothing sent the forces under general Shirley - - - - - 514 10 1

For presents to the Six Nations and other Indians in alliance with the crown of Great Britain, and the expense attending two treaties held with them for securing them to the British interest - - - - - 2,023

For maintenance of Ohio and other Western Indians, who had taken refuge in Pennsylvania, French deserters; soldiers' wives belonging to Braddock's army; and ammunition delivered to such of the frontier inhabitants as were not able to purchase any for their defence, relief and support of sundry of said inhabitants who were driven from their plantations by the enemy: and for expresses and other purposes of his majesty's service - - - - - 3,863 13 2

[The above was paid out of the treasury and loan office, and by money borrowed on the credit of the house of assembly before the governor could prevail on to pass any bills for granting an aid to his majesty]

1756. For raising, paying, and maintaining forces, building forts; maintaining and treating

Brought over with the king's Indian allies; support of French neutrals sent from Nova Scotia; billeting and supplying with necessaries the king's regular forces; and other purposes for his majesty's service, as recommended by the ministers [By two acts of assembly, 60,000*l.* and 30,000*l.*] - - - - - 0 0

For ditto by another act of assembly - - - - - 0 0

For ditto by ditto. [Note 2700 men raised and employed this year in his majesty's service, by the province of Pennsylvania, in pursuance of Mr. secretary Pitt's letter.] - - - - - 100,000 0 0

For support of a ship of war for protection of trade, (by a duty on tonnage, &c) for a six months' cruise - - - - - 6,425 15 0

For interest paid by the province for money borrowed for his majesty's service on the credit of the assembly; the charges attending the printing and signing the paper-money, and collecting, and paying the several taxes granted his majesty to the provincial treasury and of the loan office, with their and the provincial commissioners' allowances for their trouble, may be least be estimated - - - - - 5,400 0 0

For sundry Indian expenses, omitted in the above - - - - - 34 13 0

£ 327,951 11

From which deduct to reduce the sterling value, an English shilling passing for 1*l.* 6*d.* in Pennsylvania - - - - - 100,963 16 11

Sterling, £ 219,567 14

Carried over £ 26,387 2

As the reader may possibly be curious to know, any similar disputes arose between the proprietaries and the several assemblies of the

territory, or three separate counties, it is proper to inform him, that the forbearance of gentlemen in that district, were altogether as remarkable as their assumptions in the province: and to refer him to the following extract of a genuine letter of Mr. secretary Logan's to one Henry Goldney, an intimate friend of the first proprietary William Penn for a solution of all doubts concerning the difference.

"Henry Goldney.

"PHILADELPHIA, 3d March the 2d, 1768.

"ESTEEMED FRIEND,—I was favoured last fall with thine and other friends mine of 3d month last; of which I am extremely satisfactory, and on my part I do not be wanting to discharge my duty to the of my power; in my opinion, the proprietor has several times mentioned that he had proposals made to him for the purchase of a large of land on Susquehanna, for which he had an offer of 50000 sterling, it would be most advisable for him to accept of any such terms, that so he may speedily have the management of his country to himself, by paying the debt there which he has contracted upon it: to which I wish ther and his other good friends would earnestly press him, for in himself I know he is such cases somewhat doubtful and backward.

"I now design, through the greatest confidence in thy friendship both to him and me, to be very free with thee in an affair that nearly concerns him and this country in general, in which I shall request thee to use thy best thoughts, and, according to the result of these heartily to employ the endeavours: the in briefly as follows.

"This government has consisted of two parts: the province of Pennsylvania, and the three lower counties on Delaware. To the first the proprietor has a most clear and undoubted right, both for soil and government, by the king's letters patent royal charter: for the latter he has much to show; for the soil he has deeds of froment from the duke of York, but the government is necessary. After his first arrival, however, in these parts, he prevailed with the people both of the province and those counties to join the government under him, according to the powers of the king's charter, which nevertheless extended to the province only, and so they continued, not without many factions, till after the time of his last departure, when some disaffected persons took advantage of a clause, which he had unhappily inserted in a charter he gave the people, and broke off entirely from those lower counties; since which time we have had two assemblies, that of the province acting by a safe and indisputed power, but that of the other counties without sufficient (I doubt) to justify them. Last the assembly of those counties took occasion

to inquire into their own powers, upon a design to on foot, and have sent home an address by of their members, Thomas Coutts' brother, who is to negotiate the matter with the lords of trade and the ministry, to obtain powers to person or other, who the queen may think fit (though Coutts designs it for himself) to discharge all the necessary duties of government over them. This I doubt will give the proprietary great trouble, for when the council of trade is fully apprized, as by this means they will be, that those counties are entirely disjoined from the province, it is probable they may more strictly inquire into the proprietor's right of government and legislation with the people there and is much to be feared that they may advise the queen, to dispose of the government of those parts other way, which would be exceedingly destructive to the interest of the province in general.

"Upon the whole what I have to propose is, this, whether it would not be most advisable for the proprietor to consider in time what measures are for him to take for his and the country's interest, before the blow falls so heavy, that it may prove difficult, if at all practicable, for him to ward off. whether, therefore, it may not be most prudent to part with the government of both province and lower counties together, upon the best terms that can be obtained, before it proves too late for him to procure any. If he should hold the government of the province, may even of the whole, during his life, he will never gain any thing by it; and, after his decease, it will be lost, or at least be put out of the hands of friends, and perhaps without any previous terms at all, when now he may be capable himself to negotiate a surrender, both to his own particular interest, and greatly to the advantage of the profession, but whenever this is done, he should remember the present lieutenant governor, who will be a sufferer (I fear I best) by undertaking the charge, and if any thing fall of in the way I wish he would quite forget an old trusty servant of his, who has been nudging for him these ten years (but that is the business.) This I thought necessary to advise thee of, considering thee one of his best and heartiest friends, and desire thee to communicate the matter to such others may be serviceable, but by means expose this letter, for I would have kept very private. I have wrote to the purpose: the proprietaries, himself very fully, but finding, by long experience, how little it avails to write to himself alone of matters relating to his own interest, I choose this method, and give this early notice before the addresses from hence shall come to hand which, with the addresses already gone the lower counties, will certainly do our business whether the proprietor will agree to or not, and therefore best take time while it I shall commit this to thy prudence and discretion: and conclude, thy real loving friend,

"JAMES LOGAN"

HISTORICAL AND POLITICAL,

BEFORE THE REVOLUTION.

ALBANY

Containing I. *Reasons and Motives on which the Plan of Union for the Colonies was formed*; II. *Reasons against partial Unions*; III. *And the Plan of Union drawn by Benjamin Franklin, and unanimously agreed to by the Commissioners from New Hampshire, Massachusetts Bay, Rhode Island, New Jersey, Maryland, and Pennsylvania,* met in Congress at Albany, July 1754, to consider of the best Means of defending the King's Dominions in America, &c., a War being then apprehended; and the Reasons or Motives for each Article of the Plan.*

Benjamin Franklin, was one of the four commissioners from Pennsylvania.†

I. *Reasons and Motives on which the Plan of Union was formed.*

“*These commissioners from a number of the northern colonies being met at Albany, and considering the difficulties that have always attended the most necessary general measures for the common defence, for the annoyance of the enemy, when they were to be carried through the several particular assemblies of all the colonies; these assemblies being before variance with their governors or councils, and the several branches of the government not on terms of doing business with each other; others taking the opportunity, when their assistance is wanted, to push for fa-*

avourite laws, powers, or points, that they think could be other times be obtained. These creating disputes and quarrels; one assembly waiting to see what another will do, being afraid of doing more than its share, or desirous of doing less, refusing to any thing, because its country is present so much exposed as others, because another will reap immediate advantage: from one or other of which causes, the assemblies of six (out of seven) colonies applied to, had granted no assistance to Virginia, when lately invaded by the French, though purposely convened, and the importance of the occasion earnestly urged upon them; considering moreover, that one principal encouragement to the French, in invading and insulting the British American dominions, was their knowledge of our disunited state, and of our weakness arising from such want of union; and that from hence different colonies were, at different times, extremely harassed, and put to great expense both of blood and treasure, who would have remained in peace, if the enemy had not to fear the drawing on themselves the resentment and power of the whole; the said commissioners, considering also the present encroachments of the French, and the mischievous consequences that may be expected from them, if opposed with our force, to a unanimous resolution,—That the union of the colonies is absolutely necessary for their preservation.

The manner of forming and establishing the union was the next point. When it was considered, that the colonies were seldom all in equal danger at the same time, equally near the danger, equally sensible of it; that some of them had particular interests to manage, with which union might interfere; and that they were extremely jealous of each other; it was thought impracticable to obtain a joint agreement of all the colonies to a union, in which the expense and burden of defending any of them should be divided among them all; and if a union of assembly in all the colonies could be obtained for that purpose, yet as any colony, the least dissatisfied, might repeal its own act and thereby withdraw itself from the union, it

* The plan was intended for the colonies. Some of the commissioners attending, their consent to it was not universally expressed. Governor Poweall says, “He had an opportunity of conversing with, and knowing the sentiments of the commissioners appointed by the respective provinces, to which they were called by the crown; of hearing from their experience and judgment, the state of the American business and interest; and of hearing amongst them, the grounds and reasons of that American union, they were under deliberation, transmitted the plan to England;” and he adds, “place, the sentiments of our colonies were unanimous on this subject. The plan proposed by Dr. Franklin, was unanimously agreed to in congress.” See Governor Poweall’s Administration of the British Colonies, Vol. i. p. 13. 4. 1774, vol. ii.

† “Mr. [since governor] Hutchinson was one of the Commissioners from the Bay.” See Governor Poweall, brother to John Poweall, Esq. one of the secretaries to the board of trade, and afterwards governor of Massachusetts, &c. &c. &c. History of the British Empire in America, p. 25.

would be a stable one, such could be depended on for if only one colony should, on any disgust withdraw itself, others might think it unjust and unequal that they, by continuing in the union, should be at the expense of defending a colony, which refused to bear its proportionable part, and would therefore one after another, withdraw, till the whole crumbled into its original parts. Therefore the commissioners to another previous resolution, viz. *That it is necessary the union should be established by act of parliament.*

They then proceeded to sketch out a plan of union, which they did in a plain and concise manner, just sufficient to show their sentiments of the kind of union that would best suit the circumstances of the colonies, be most agreeable to the people, and most effectually promote His Majesty's service, and the general interest of the British empire. This was respectfully sent to the assemblies of the several colonies for their consideration, and to receive such alterations and improvements as they should think fit and necessary; after which it was proposed to be transmitted to England to be perfected, and the establishment of it there humbly solicited.

This was as much as the commissioners could do.

II. Reasons against partial Unions.

It was proposed by some of the commissioners, to join the colonies into two or three distinct unions; but for these reasons that proposal was dropped by those that made it: viz.

1. In all cases where the strength of the whole was necessary to be used against an enemy, there would be the same difficulty in degree, to bring the several unions to unite together, as the several colonies; and consequently the delays on our part and advantage to the enemy.

2. Each would separately be weaker than when joined by the whole, obliged to more force, be oppressed by the expense, the enemy less deterred from attacking it.

3. Where particular colonies have selfish views, as New York with regard to trade and lands; or are less exposed, being covered by others, as New Jersey, Rhode Island, Connecticut, Maryland; or have particular whims and prejudices against warlike measures in general, as Pennsylvania, where the quakers predominate; such colonies would have weight in a partial union, and be better able to oppose and obstruct the necessary for this general good, than where they are swallowed up in the general

4. The Indian trade would be better regulated by the union of the whole than by the partial unions. And as Canada is chiefly supported by that trade, if it could be drawn into the hands of the English (as it might be if the Indians supplied moderate terms, by honest traders appointed by and acting for the public) that alone would contribute greatly to the weakening of our

5. The establishing of colonies westward on the Ohio and the lakes (a considerable importance to the increase of British trade and power, the breaking that of French, and to the protection and safety of our present colonies,) would best be carried on by a joint

It was also thought, that by the frequent meetings together of commissioners representatives from all the colonies, the circumstances of the whole would be better known, the good of the whole better provided for; and that the colonies would by this connexion learn to consider themselves, not as many independent states, but as members of the same body; and thence be more ready to afford assistance and support to each other, and to make diversions in favour even of the most distant, and to join cordially in any expedition for the benefit of all against the common enemy.

These were the principal and motives for forming the plan of union as it stands. To which may be added this, that as the union of the

The remainder of this article lost.

Plan of a proposed Union of the several Colonies of Massachusetts's Bay, New Hampshire, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Maryland, Virginia, North Carolina, and South Carolina, for their mutual Defence and Security, and for extending the British Settlements in North America, with the Reasons and Motives for each Article of the Plan—[as far as could be remembered.]

It is proposed—That humble application be made for an act of parliament of Great Britain, by virtue of which a general government may be formed in America, including all the said colonies, within and under which government each colony may retain its present constitution, except in the particulars wherein a change be directed by the said act, as hereafter follows.

That the said general government be administered by a president-general, to be appointed and supported by the crown; and

* Dr D. is well convinced of the expediency of a union of colonies, &c. &c. as full length, a plan contrived, &c. &c. says, with good judgment for purpose. Davenant, Vol. I. p. 46, 47 of our C. edition.

* The reader is to observe, by the difference of the Italic and Roman type, which is the text of the plan, and which the reasons and motives mentioned in it. They are printed for perpetuity, for convenience.

a grand council, ■ be chosen by the representatives of the people of the several colonies ■ in their respective assemblies.

It ■ thought that it would be best the president-general should be supported as ■ appointed by the crown; that so ■ disputes between him ■ the grand council ■ salary might be prevented; as such disputes have been frequently of mischievous consequence in particular colonies, especially in time of public danger. The quit-rents of crown-lands in America might in a short time be sufficient for this purpose.—The choice of members for the grand council is placed in the house of representatives of each government, in order to give the people a share in this new general government, as the crown has its share by the appointment of the president-general.

■ it being proposed by the gentlemen of the council of New York, and ■ other counsellors among the commissioners, to alter the plan in this particular, and to give the governors and council of the several provinces a share ■ the choice of the grand council, or at least a power of approving and confirming, or of disallowing ■ choice made by the house of representatives, it ■ said :

"That the government or constitution proposed to be formed by the plan, ■ of two branches; a president-general appointed by ■ crown, and a council chosen by ■ people, or by the people's representatives, which is ■ thing.

■ "That by ■ subsequent article, the council chosen by the people can effect nothing without the consent of the president-general appointed by the crown: the crown possesses therefore full one half of the power of this constitution.

"That in the British constitution, the crown is supposed ■ but one third, the lords having their share.

"That this constitution seemed rather more favourable for the ■

"That it is essential to English liberty, that the subject should not be taxed but by his ■ consent, ■ the consent of his elected ■ representatives.

"That taxes to be laid and levied by ■ proposed constitution will be proposed and agreed to by the representatives of the people, if the plan in this particular be preserved :

"■ if the ■ alteration should ■ place, it seemed as if matters may be so managed, as that the crown shall ■ have the appointment not only of the president-general, ■ of a majority of the grand council; for seven ■ of eleven governors and councils are appointed by ■

"And so the people in all the colonies would in effect ■ taxed by their governors.

"It ■ therefore apprehended, that such alterations of the plan would give great ■

satisfaction, and ■ colonies could ■ be easy under such a power ■ governors, and such an infringement of what they take to be English liberty.

"Besides, the giving a share in ■ choice of the grand council would not be equal with respect to all the colonies ■ their constitutions differ. In some, both governor ■ council are appointed by the ■ In others, they ■ both appointed by the proprietors. ■ the people have a share ■ the choice of the council; in others, both government and council are wholly chosen by the people. ■ the house of representatives is every where chosen by the people; and therefore, placing ■ right of choosing the grand council in the representatives is equal with respect ■ all.

"That the grand council is intended to represent ■ the several houses of representatives of the colonies, as a house of representatives doth the several towns or counties of a colony. Could all the people of a colony be consulted and unite in public measures, a house of representatives would be needless, and could all the assemblies conveniently consult and unite in general measures, the grand council would be unnecessary.

"That a house of commons or the house of representatives, and the grand council, ■ thus alike in their nature and intention. And as it would seem improper that the king or house of lords should have a power of disallowing or appointing members of the house of commons;—so likewise, that ■ governor and council appointed by the crown should have a power of disallowing ■ appointing members of the grand council (who, in this constitution, are ■ be the representatives of the people.)

"If the governors and councils therefore were to have a share in the choice of any that are to conduct this general government, ■ should seem more proper that they choose the president-general. But this ■ office of great trust and importance ■ the nation, ■ thought better ■ be ■ by the immediate appointment of the ■

"The power proposed ■ be given by the plan to the grand council ■ only ■ concentration of the powers of the ■ assemblies in certain points ■ the general welfare; as the power of the president-general, ■ of the powers of the several governors in the same points.

"And as the choice therefore of the grand council, by the representatives of the people, ■ gives the people ■ new powers, ■ the power of the crown, it ■ thought and hoped the ■ would ■ disapprove of it."

Upon the whole, the commissioners ■ of opinion, that ■ choice was ■ properly placed in the representatives of the people.

That *months* after the passing such act, *house of representatives*, that happen to be sitting within that time, or that shall be especially for that purpose convened, may and shall choose members for the grand council, in the following proportion, that is to say,

<i>Massachusetts's Bay,</i>	- - -	7
<i>New Hampshire,</i>	- - -	2
<i>Connecticut,</i>	- - -	5
<i>Island,</i>	- - -	2
<i>New York,</i>	- - -	4
<i>New Jersey,</i>	- - -	3
<i>Pennsylvania,</i>	- - -	6
<i>Maryland,</i>	- - -	4
<i>Virginia,</i>	- - -	7
<i>North Carolina,</i>	- - -	4
<i>South Carolina,</i>	- - -	4

48

It was thought, *if the least colony* allowed two, and the others in proportion, *number* would be very great, and the expense heavy; and that less than two would not be convenient, as *a single person*, being by any accident prevented appearing *the meeting*, the colony he ought *appear* for would not *represented*. That *the choice* was not immediately popular, they would be generally men of good abilities for business, and men of reputation for integrity; and that forty-eight such men might be a number sufficient. But, though it *thought* reasonable, that each colony should have *a share* in the representative body in *degree*, according to the proportion it contributed to the general treasury: yet the proportion of wealth or power of the colonies *to* *judged* by the proportion here fixed; because it was at first agreed, *the greatest colony* should not have more *members*, *the least* less than two: and *setting* these proportions *between* *two extremes* was not nicely attended to, as it would *itself*, after the first election from the sums brought into the treasury, *by* *a subsequent article*.

—who shall meet for the first time at the city of Philadelphia in Pennsylvania, being called by the president-general *conveniently* may be after *appointment*.

Philadelphia was named as being the nearer the centre of *colonies*, where the commissioners would *well* and cheaply accommodated. *high-roads*, through the whole extent, *the most part* very good, *which forty or fifty miles a day* may very well be *frequently* are travelled. *part of the way* may likewise be gone by water. In summer time, the passages are frequently performed in a week from Char-

ton to Philadelphia and New York; and from Rhode Island to New York through the sound, in two or three days; and *New York* to Philadelphia, by *and* land, in two days, by stage *wheel carriages* that *out every other day*. The journey from Charleston to Philadelphia may likewise be facilitated by boats running up Chesapeake bay three hundred miles. But if the whole journey be performed on horseback, the *distant members* (viz. *from New Hampshire* and from South Carolina) may probably render themselves at Philadelphia in fifteen or twenty days; the majority may be there *much less time*.

That there *be a* *election of* *members of* *grand council every three years*; and *the* *resignation of* *any member*, his place should be supplied by *a new choice* *the* *sitting of* *assembly of the colony he represented*.

Some colonies have annual assemblies, *continue during a governor's pleasure*; three years was thought a *medium*, *affording* *a new member time* to improve himself in the business, and to act after such improvement; and yet giving opportunities, frequently enough, to change him, if he has misbehaved.

PROPORTION OF *THE FIRST* YEARS.

That after the first three years, when the proportion of money arising out of each colony to the general treasury *be known*, the number of members to be chosen for each *long shall from time to time*, in all ensuing elections, be regulated by that proportion (yet so as that the number to be chosen by any one province be *more than seven*, *less than two*.)

By *a subsequent article* it is proposed, that *general council* *lay* *levy* such general duties, *they may appear* most equal and least burdensome, &c. Suppose, for instance, they lay *a small duty* or excise *some commodity imported into* *made* *the colonies*, and pretty generally and equally used in all of them; as rum perhaps, or wine: *yearly produce of this duty* *excise*, if fairly collected, would *in* *colonies* greater, in others less, *the colonies* greater or smaller. When the collector's accounts are brought in, the proportions will appear; and from them its proposed to regulate the proportion of representatives to be chosen at the next general election, within the *however of seven and two*. *numbers may therefore vary in course of* *as the colonies may* *growth and*

increase of people. And thus the quota of tax from _____ colony would naturally vary _____ circumstances; thereby preventing all disputes and dissatisfaction about the just proportions due _____ each; which might otherwise produce pernicious consequences, _____ destroy the harmony and good agreement that ought _____ subsist between the several parts of the union.

MEETINGS OF THE GRAND COUNCIL, AND CALL.

the grand council shall once in every year, and after if require, at such time and place as they shall adjourn to in the last preceding meeting, or as they shall be to meet at by the president-general on any emergency; he having first obtained in writing the of of the members to such call, and sent due and timely notice to the whole.

■ was thought, in establishing and governing ■ colonies ■ settlements, regulating Indian trade, ■ treaties, &c. there would be every year sufficient business arise to require ■ least one meeting, and at each meeting many things might be suggested for the benefit of all the colonies. This annual meeting may either be ■ a time ■ place certain, to be fixed by ■ president-general and grand council ■ their first meeting ; or left at liberty, ■ ■ at such time and place ■ they shall adjourn to, or be called to meet ■ by the president-general.

time of war it seems convenient, that the meeting should be in that colony which is nearest the center of action.

The power of calling them on any emergency seemed necessary ■ ■ vested in the president-general ; but that such power might not ■ wantonly used to harass the members, and oblige them to make frequent long journeys ■ ■ ■ purpose, the consent of seven ■ ■ ■ such call was supposed a convenient guard.

CONTINUANCE

the grand council have power to choose their speaker; and neither be dissolved, prorogued, nor continued sitting longer than six weeks at one time, without their own consent or the special command of the crown.

The speaker ~~must~~ be presented for approbation ; it being convenient, ~~to~~ prevent misunderstandings and disgusts, ~~in~~ the month of the council ~~shall~~ be ~~a~~ agreeable, if possible, both to the council and president-general.

Governors have sometimes wantonly exercised the power of proroguing or continuing the sessions of assemblies, merely to harass members and compel compliance; and dissolve them on slight disquiets. It was feared might be done by the presi-

dent-general, if not provided against: the
inconvenience hardship would greater
in general government than in particular
colonies, in proportion to the distance
members must be from home, during sittings,
the long journeys of them must
necessarily

VIEWERS'

That the members of the grand council shall be [redacted] for their service ten shillings sterling per diem, during their [redacted] and journey [redacted] and from the place of meeting; twenty miles [redacted] reckoned a day's journey.

It was thought proper to allow some wages, and the expense might deter any suitable persons from the service ;—and not to allow too great wages, lest unsuitable persons be tempted to cabal for the employment, for the sake of gain. Twenty miles was down a day's journey, to allow for accidents, hindrances on the road, and the great expenses of travelling than residing at the place of meeting.

AND HIS DUTY.

That the assent of the president-general be requisite to all acts of the grand council; and that it be his office and duty to cause them to be carried into execution.

The assent of the president-general to all **■** of the grand council was made necessary, in order to give the crown its due share of influence in this government, and connect **■** with that of Great Britain. The president-general, besides one half of the legislative power, hath in his hands the whole executive power.

TREATIES ON ARMS AND WAR.

That the president-general, with the advice of the grand council, hold or direct all Indian treaties, in which the general interest of the colonies may be concerned; and make peace or declare war with Indian nations.

The power of making peace — with Indian nations is at present supposed to be in every colony, — expressly granted to some by charter, — that — new power is hereby intended to be granted — the colonies. But — in consequence of this power, one colony might make peace with — nation that another — justly engaged in — with; — — on slight occasions without the concurrence or approbation of neighbouring colonies, greatly endangered by it; — make particular treaties of neutrality in case of a general war, — their own private advantage in trade, by supplying the — enemy; of all which there have been instances—it was thought better, — have — treaties of a

general measure under a general direction,
that so the good of the whole may be consult-
ed provided

INDIAN _____

they such laws as they judge necessary for regulating trade

Many quarrels and wars have arisen between the colonies and Indian nations, through the conduct of those who cheat the Indians after making them drunk, &c. to the great expense of the colonies, both in blood and money. The colonies are so interested in the trade, they are not willing to admit such a regulation might be best for the whole, and therefore it was thought best to refer a general direction

INDIAN PURCHASER

That they make all purchases, from Indians for the Crown, of lands not now within the bounds of particular colonies, or that still are within their bounds when they are reduced to more convenient dimensions.

Our names from the Indiana, made by private persons, have been attended with many inconvenience. They have frequently interested, and occasioned uncertainty of title, in red dispute and expensive law-suits, and hindered the settlement of the land so disputed. Then the Indians have been cheated by such private purchases, and discontent and wars have been the consequence. These would be prevented by public fair purchases.

Several of the colony charters in America extend their bounds to the South Sea, which may perhaps three or four thousand miles in length, or two hundred miles in breadth. It is supposed they must at times be of dimensions very convenient for the common purposes of government.

1173 Viscount in his account of the Proceedings
in 1718 for obtaining the Embassy etc. The vast
enlargement of the province of Quebec by adding to it
the territory that according to Lord Hall
is a vast estimation of it has been less eleven
thousand acres that is less than Spain Italy
Germany put together most of it good
and is a vast that would require a great deal

The motive assigned by [redacted] quoted by the government of Quebec [redacted] to the arrangements made by the royal proclamation was [redacted] of colonizing country within which there are several colonies and settlements of the subject of France who claimed to remain there under no faith [redacted] said [redacted] was without any provision made for [redacted] administration of civil government [redacted] a few Indian traders would protest for [redacted] nation [redacted] tract of country which [redacted] the minister [redacted] was [redacted] larger than England [redacted] trusted one hundred [redacted] twenty eight [redacted] larger than Jamaica [redacted] part of Europe and considerably [redacted] one thirty eighth part of the [redacted] all the inhabitants of the province of Quebec, save [redacted] at this distance [redacted] sixty [redacted] founding only [redacted] professing the religion of the church of Rome [redacted] swaying an hybrid form of constitution and system of laws

Very little of the land in those grants is yet purchased of the Indians.

It is much cheaper to purchase of the Indians, than to take [redacted] the possession by force for they generally very reasonable in their demands for land, * and the expense of guarding a large frontier against their [redacted] is usually great, because all must be guarded, and always guarded, as we know not where or when [redacted] expect them.

That they make new settlements ■ such purchases, by granting ■ the king's name, reserving ■ quit-rent ■ the crown for the use of the general treasury

■ ■ ■ supposed better that there should be one purchaser than many, and that the crown should be that purchaser, or the union in the name of the crown. By this means the bargains may be more easily made, the price not enhanced by numerous bidders, future disputes about private Indian purchases, ■ ■ ■ monopolies of ■ ■ ■ tracts, ■ ■ ■ particular persons (which are prejudicial ■ ■ ■ the settlement and peopling of the country, prevented, and the land being again granted ■ ■ ■ small tracts to the settlers, the quit-rents reserved may in time become ■ ■ ■ fund for support of government, for defence of the country. ■ ■ ■ of taxes, &c

Strong forts on the lakes, the Ohio, &c. may, the assurance they present frontier, serve to defend new colonies, settle under their protection, and such colonies would also mutually defend and support such forts, and better secure the friendship of the far Indians.

A particular colony has _____ length enough to extend itself by new settlements, at so great a distance from the old _____ but the _____ force of the _____ might suddenly be

* Franklin (Cave) frequently told me that a powerful Indian who possessed Blue had sold it to the English for a piece of spirit, and it is large enough for a piece of domain and makes a piece of virtue at present. See Kalm's Travels North America Vol I at the when I arrived they brought a very strong belief for a piece of land and a piece of the lake they could get a piece of ground which was worth more than 500 Sterling to Vol II p 138-The truth is that the Indians considered their hands as mere hunting men and not as farmers.

1 To guard against the incursions of the Indians, a
 plan was mooted over to America it was said, by _____
 city suggesting the expediency of clearing away _____
 woods and bushes from a tract of land _____
 and extending along the back of the colonies _____
 tunately bounded the large _____ the undertaking
 (which of one acre cost 22 sterling and six hundred and
 forty shillings) a square mile _____ first cost for
 every hundred miles) _____ the Indians
 like other people _____ in _____ say
 _____ and that a mile of advance and another of retreat
 _____ nothing to the celerity of such an enemy —
 _____ was the work of Tucker dean of Gloucester — a con-
 spicuous writer on _____ before and during
 the _____

lish a new colony or two in **these** parts, or extend an old colony **in** particular passes, greatly to the security of our present frontiers, increase of trade and people, breaking off the French communication between Canada and Louisiana, and speedy settlement of the intermediate lands.

The power of settling new colonies is therefore thought a valuable part of the plan, and what cannot so well be executed by two unions **as** by one.

LAW TO **THESE**.

*That they make laws for regulating and governing such new settlements, till the crown **may** think fit to form them into particular governments.*

The making of laws suitable for the new colonies, it was thought, would be properly vested in the president-general and grand council; under whose protection they must at first necessarily be, and who would be well acquainted with their circumstances, **as** having settled them. "When they are become sufficiently populous, they **may** by the **same** be formed into complete and distinct governments.

The appointment of a sub-president by the crown, to take place in case of the death or absence of the president-general, would perhaps be an improvement of the plan; **and** if **the** governors of particular provinces were to be formed into **a** standing council of state, for the advice and assistance of the president-general, it might be another considerable improvement.

SOLDIERS, **AND VESSELS, &c.**

*That they raise and pay soldiers and build forts for the defence of any of the colonies, and equip vessels of force **to** guard the **same** and protect the trade on the ocean, lakes,* or great rivers; but they shall not impress men in **any** colony without the consent of the legislature.*

It was thought, that quotas of men, to **be** raised and paid by **the** several colonies, **and** joined for any public service, could not always be got together with the necessary expedition. For instance, **some** thousand **men** should be wanted in New Hampshire on any emergency; to fetch them by fifties and hundreds **from** every colony, **as** far **as** Carolina. **It** **is** **an** inconvenient, the **same** portation **of** **men** and the occasion perhaps passed before they could be assembled; **and** therefore that it would be best to raise them (by offering bounty-money and pay) **at** **the** place where they would be wanted, to be discharged again when **their** services should be over.

* "According to a plan which had been proposed by governor Pownall, and approved of by congress."—*Ad-vice of the Colonies*, vol. ii. p. 100

Particular colonies are **to** present backward to build forts at their own expense, which they **may** will **be** equally **to** their neighbouring colonies; who **may** refuse to join, on a presumption that such forts will be built and kept **by** **them** though they contribute nothing. This unjust conduct weakens **the** whole; but the forts being for the good of the whole, it was thought **that** they should be built and maintained by the whole, out of **the** common treasury.

In the time of war, **the** vessels of force **are** sometimes necessary in the colonies **to** scour the coast of **the** privateers. These being provided by the union will be an advantage in **the** to the colonies which are situated on the **same** and whose frontiers on the land-side, being covered by other colonies, reap but little immediate benefit from the advanced forts.

POWER **TO** **MAKE** LAWS, **AND** DUTIES, &c.

*That for these purposes they have power **to** make laws, and lay and levy such general duties, imports, **and** taxes, **as** to them **may** appear most equal and just (considering the ability and other circumstances of the inhabitants in the several colonies,) and such **as** may be collected with the least inconvenience to the people; rather discouraging luxury, than loading industry with unnecessary burdens.*

The laws which the president-general **and** grand council are empowered to make are such only **as** **are** necessary for the government of the settlements; the raising, regulating, and paying soldiers for the general service; the regulating of Indian trade; and laying and collecting the general duties and taxes. (They should also have a power to restrain the exportation of provisions **to** the enemy from any of the colonies, on particular **occasions** in time of war.) But is it **intended** that they may interfere with the constitution and government of the particular colonies; who **are** to be left to their own laws, and to lay, levy, **and** apply their **own** **as** before.

GENERAL **AND** **THESE** **SURE**.

*They may appoint a general treasurer and particular treasurer in each government, when necessary; and from time **to** time may order the **same** **to** the treasuries of each government into the general treasury; or draw on them for special payments, as they find most convenient.*

The treasurers here meant **are** only for **the** general funds, and not for the particular funds of **any** colony, which **are** in **the** **disposal** of their own treasurers at their **own** disposal.

HOW TO ISSUE.

Yet no money to issue but by joint orders

of the president-general and grand council; except where sums have been appropriated to particular purposes, and the president-general is previously impowered by an act to draw such sums.

To prevent misapplication of the money, or even application that might be dissatisfactory to the crown, the people, it was thought necessary, to join the president-general and grand council in issues of money.

ACCOUNTS.

That the general council be yearly reported to the several assemblies.

By communicating the accounts yearly to each assembly, they will be of prudent and honest conduct of their representatives in the grand council.

QUORUM.

That a quorum of the grand council, impowered to act with the president-general, do consist of twenty-five members: among whom there shall be or from a majority of the colonies.

The quorum is large, but it was thought it would not be satisfactory to the colonies in general, to have of importance to the whole transacted by a smaller number, or even by this number of twenty-five, unless there were among them one at least from a majority of the colonies; because otherwise, the whole quorum being made up of members from three or four colonies at one end of the union, something might be done that would not be equal with respect to the rest, and thence dissatisfaction and discords might be the prejudice of the whole.

That the laws made by them for the purposes aforesaid shall not be repugnant, but, as may be, agreeable to the laws of England, and shall be transmitted to the king in council for approbation, as after their passing; and if disapproved within three years after presentation, to remain in force.

This was thought necessary for the satisfaction of the crown, to preserve the connexion of the parts of the British empire with the whole, of the members with the head, to induce greater circumspection in making of laws, that they be good themselves and for the general benefit.

DEATH OF THE

That of the death of the president-general, speaker of the grand council for being all succeed, and be vested powers and authorities, to continue till the king's pleasure be known.

might be better, perhaps, to said be-

fore, if the crown appointed a vice-president, to take place on the death or absence of the president-general: for so we should be more sure of a suitable person the head of the colonies. On the death or absence of both, speaker to take place (or rather the eldest king's governor) till his majesty's pleasure be known.

That all military commission officers, whether for land or sea service, to under this general constitution, shall be nominated by the president-general; but the approbation of the grand council is to be obtained before they receive their commissions. And civil officers are to be nominated by the grand council, and receive the president-general's approbation before they officiate.

It was thought it might be very prejudicial to the service, to have officers appointed unknown to the people, or unacceptable, the generality of Americans serving willingly under officers they know: caring to engage in the service under strangers, or such often appointed by governors through favour or interest. The service here meant, not the stated settled service in standing troops; but any sudden and short service, either for defence of our colonies, or invading the king's country; (such as, the expedition to Cape Breton in the last war; in which many substantial farmers and tradesmen engaged as common soldiers, under officers of their own country, for whom they had an esteem and affection; who would not have engaged in a standing army, or under officers from England.) It was therefore thought best, to give the council the power of approving the officers, which the people will look upon as a great security of their being good. And without such provision as this, it was thought the expense of engaging in the service in any emergency would be much greater, and the number who could be induced to engage much less; and that therefore it would be for the king's service and general benefit of the nation, that the prerogative should relax a little in particular throughout the colonies in America; it had already done much in the charters of some particular colonies, viz. Connecticut and Rhode civil officers will chiefly collectors of taxes; the suitable persons are most likely to be known by the council.

VACANCIES HOW SUPPLIED.

But in case of vacancy by death, or removal of any officer civil or military under this constitution, the governor of the province in which such vacancy happens appoint.

fill the pleasure of the *president-general* and *grand council* can be known.

The vacancies were thought best supplied by the governor in each province, till a permanent be regularly made, other the service might suffer before the meeting of the president-general and grand council.

THEir Majesties' ITSELF OVERSEER-GENY, &c

That the particular military as well as civil establishments in each colony remain in their present state, the general constitution notwithstanding, and that no sudden increase in any colony may defend itself and lay the accounts of expense there arising before the president-general and general council, who may allow and order payment of the same, as far as they judge such accounts just and reasonable.

Otherwise the union of the whole would weaken the parts, contrary to the design of the Union. The accounts are to be judged of by the president-general and grand council, and allowed if found reasonable: this was thought necessary to encourage colonies to defend themselves, as the expense would be light when borne by the whole, and also to check imprudent and lavish expense in such defences.

'ALBANY PAPERS—continued

Letter to governor Shirley, concerning the Imposition of direct Taxes upon the Colonies, without their consent &c

Thursday morning

Sir—I return you the enclosed sheet of the

* This plan of union was printed and sent forth prepared by the British minister, and for the purpose of taking power from the people in the colonies in order to give it to the crown.

† I think I there to give to the British three appeared in the *London Chronicle* for Feb 6 1766 with an introduction signed *A Friend of Britain*. In the beginning of the article they were reproached in *Albany* for remembering with an addition of a satisfactory piece under the signature of *A Member of our Colonies*.—The subject of the work of one of these writers was as follows:—The Albany Plan of Union was sent to the government here for approbation, but it being approved and established by authority from us in England. America thought it fit to dissent from it, as it was to cope with the French without other assistance. Several of the colonies having arms in their hands, without their whole power united not only in the mother country, but by the means of the many provinces. The plan however was not approved here, as it was formed in stead of it, which proposed that the governors of all the colonies attend the meeting of the members of their respective assemblies should be and concert measures for the defence of the whole, and where they could proper and necessary, what troops they thought necessary with power to draw in the necessary here for the same should be wanted and the treasury to be furnished by a sum raised in the colonies by act of parliament.—This plan being communicated by governor Shirley to Dr. Franklin then in Boston and produced the corresponding

plan, with thanks, your excellency for communicating the same.

I apprehend, that excluding the people of the colonies from all share in the choice of the grand council will give extreme dissatisfaction, as well as the taxing them by act of parliament, when they have no representation.

It is very possible, that this general government might be well and faithfully administered without the people, as with them, but where heavy burdens are to be laid upon them, it has been found full, to make it as much as possible their own act, for they bear the burthen, when they love, or think they have some share in the direction, and when any public measures are generally grievous, even and useful, to the people, the wheels of government move more readily.

Letter to the governor of the colonies, dated 1766, concerning the Taxes in the Colonies, and the Albany Plan of Union.

When I mentioned it formerly to your excellency as my opinion, that excluding the people of the colonies from all share in the choice of the grand council, was probably give extreme dissatisfaction, and that taxing them by act of parliament, when they have no representation, in the case of an evil concern to do good, and to ease where burdens are to be laid upon them, is of use to consider well, I have all opportunity to think and to say, as I think I shall therefore say, as I have requested of me, being that the either kind occurs to me.

First, they will say, that the people are as loyal, and as free as the present constitution, and that the subjects in the colonies are as loyal, and as free as the present constitution, and that the subjects in the colonies are as loyal, and as free as the present constitution.

That there is no reason to establish a new tax, and willingness of the colonies to give them may choose, to grant them the time and supplies for the defence of the colonies, as shall be judged necessary, and that the colonies will allow.

That the people in the colonies who feel the immediate effects of invasion and conquest by an enemy, the loss of their estates, lives, and liberties are likely to be better judges of the quantity of arms necessary to be raised and maintained, to be built and supported, and of the union of the colonies to bear the expense than the parliament in England, at so great a distance.

That governors often come to the colonies merely to make fortunes, with which they intend to return to Britain, are always men of the best abilities or integrity, have many of them no estates here, nor natural

connexions with us, that should make them heartily concerned for our welfare; and might possibly be fond of raising and keeping up more forces than necessary, from the profits accruing to themselves, and to make provision for their friends and dependents.

That the counsellors in most of the colonies, being appointed by the crown, on the recommendation of governors, are often persons of small estates, frequently dependent on the governors for offices, and therefore too much under influence.

That there is therefore great reason to be jealous of a power, in such governors and councils, to raise such sums as they may judge necessary, by drafts on the lords of the treasury, to be afterwards laid on the colonies by act of parliament, and paid by the people here; since they might abuse it, by projecting useless expeditions, harassing the people, and taking them from their labour to execute such projects, merely to create offices and employments, and gratify their dependents, and divide profits.

That the parliament of England is at a great distance, subject to be misinformed and misled by such governors and councils, whose united interests might probably secure them against the effect of any complaint from hence.

That it is supposed an undoubted right of Englishmen, not to be taxed but by their own consent, given through their representatives.

That the colonies have no representatives in parliament.

That to propose taxing them by parliament, and refuse them the liberty of choosing a representative council, to meet the colonies, would consider and judge of the necessity of any general tax, and the quantum, shows a suspicion of their loyalty to the crown, or of their regard for their country, or of their common sense and understanding; which they have not deserved.

That compelling the colonies to pay money without their consent, would be rather like raising contributions in an enemy's country, than taxing of Englishmen for their own public benefit.

That it would be treating them as conquered people, and not as true British subjects.

That a tax laid by the representatives of the colonies might be easily lessened as the colonies should lessen; but being once laid by parliament under the influence of the representations made by governors, would probably be kept up, and continued for the benefit of governors; in the grievous burden and discontentment of the colonies, and prevention of their growth and increase.

That a power in governors, to march the inhabitants from one end of the British and French colonies to the other, being a country of at least thousand five hundred miles long, without the approbation or the consent of their representatives first obtained to such

expeditions, might be grievous and ruinous to the people, and would put them upon a footing with the subjects of France in Canada, that now groan under such oppression from their governor, who for two years past has harassed them with long and destructive marches to Ohio.

That if the colonies in a body may be well governed by governors and councils appointed by the crown, without representatives; particular colonies may as well, or better be so governed; and may be laid upon them all by act of parliament for support of government; and their assemblies may be dismissed as an useless part of the constitution.

That the powers proposed by the Albany plan of union, to be vested in a grand council representative of the people, even with regard to military matters, are not so great, as those which the colonies of Rhode Island and Connecticut are entrusted with by their charters, and have never abused; for by this plan the president-general is appointed by the crown, and controls all by his negative; but in those governments, the people choose the governor, and yet allow him no negative.

That the British colonies bordering on the French are properly frontiers of the British empire; and the frontiers of an empire are properly defended by the joint expense of the body of the people in such empire:—it would now be thought hard by act of parliament to oblige the Cinque Ports or the coasts of Britain, to maintain the whole navy, because they are now immediately defended by it, not allowing them at the same time a vote in choosing members of the parliament; and as the frontiers of America bear the expense of their own defence, it seems hard to allow them no share in voting the money, judging of the necessity and sum, or advising the measures.

That besides the taxes necessary for the defence of the frontiers, the colonies pay yearly great sums to the mother country unnoticed:—for 1. Taxes paid in Britain by the landholder or artificer into and increase the price of the produce of land and manufactures made of it; and great part of this is paid by consumers in the colonies, who thereby pay a considerable part of the British taxes.

2. We are restrained in our trade with foreign nations; and where we could be supplied with any manufacture cheaper from them, but must buy the same dearer from Britain, the difference of price is a clear tax on Britain.

3. We are obliged to carry a great part of our produce directly to Britain; and where the duties laid upon it lessen its price to the planter, it sells for less than it would in foreign markets, the difference is a tax paid to Britain.

4. Some manufactures we could make, but are forbidden, and we take them of British

merchants: ■■■ whole price ■■■ tax paid ■■■ Britain.

5. By our greatly increasing the demand ■■■ consumption of British manufactures, their price is considerably raised of late years; the advantage is clear profit to Britain, ■■■ enables ■■■ people better to pay great taxes; ■■■ much of it being paid by us, is clear tax to Britain.

6. In short, ■■■ ■■■ not suffered to ■■■ regulate our trade, and restrain the importation and consumption of ■■■ superfluities (as Britain ■■■ the consumption of foreign superfluities) ■■■ whole wealth centres finally ■■■ the merchants and inhabitants of Britain; and if ■■■ make them richer, and enable them better to pay their taxes; it is nearly the ■■■ ■■■ being taxed ourselves, and equally beneficial to the crown.

Those kind of secondary taxes, however, we do not complain of, though ■■■ have no share in the laying ■■■ disposing of them: but to pay immediate heavy taxes, in the laying, appropriation, and disposition of which, we have no part, and which perhaps we may know to be ■■■ unnecessary ■■■ grievous, must seem hard measures to Englishmen, who cannot conceive, that by hazarding their lives and fortunes in subduing and settling new countries, extending the dominion, and increasing the ■■■ of the mother nation, they have forfeited the native rights of Britons; which they think ought rather ■■■ be given to them, as due to such merit, if they had been before in a state of slavery——

These, and such kinds of things ■■■ these, I apprehend, will be thought and said by the people, if the proposed alteration of the Albany plan should take place. Then the administration of the board of governors and council ■■■ appointed, not having the representative body of the people to approve and unite in its measures, and conciliate the minds of the people to them, will probably be ■■■ suspected and odious; dangerous animosities and feuds will arise between the governors and governed; and every thing go into confusion.

Perhaps I am too apprehensive in this matter; but having freely given my opinion and reasons, your excellency ■■■ judge better than I, whether there ■■■ any weight in them, and ■■■ shortness of the time allowed me will I hope in ■■■ degree ■■■ the imperfections of this scrawl.

With ■■■ greatest respect and fidelity, have the honour to be ■■■ FRANKLIN.

III. Letter on the subject of uniting the Colonies more intimately with Great Britain, by Representatives ■■■ Parliament.

Boston, Dec 22, 1764.

Sir,—Since ■■■ conversation your excel-

lency was pleased ■■■ honour me with, on the subject of uniting the colonies more intimately ■■■ Great Britain, by allowing them representatives in parliament, I have something further considered that matter, and on ■■■ opinion, that such an union would be very acceptable ■■■ the colonies, provided they had a reasonable number of representatives allowed them; and that all the old acts of parliament restraining the trade ■■■ cramping the ■■■ factories of the colonies be at the same time repealed, and the British subjects on this side the water put, in those respects, ■■■ the same footing with those ■■■ Great Britain, till the new parliament, representing the whole, shall think it for the interest of the whole to ■■■ ■■■ ■■■ of them: it ■■■ not that I imagine ■■■ many representatives will be allowed the colonies, ■■■ to have any great weight by their numbers; but I think there might be sufficient to occasion those laws to be better and ■■■ impartially considered, and perhaps to overcome the interest of a petty corporation, or of ■■■ particular set of artificers or traders in England, who heretofore seem, in some instances, to have been more regarded than all the colonies, or than was consistent with the general interest, or best national good. I think too, that the government of the colonies by a parliament, in which they are fairly represented, would be vastly more agreeable to the people, than the method lately attempted to be introduced by royal ■■■ instruction: as well as more agreeable to the nature of an English constitution, and to English liberty; and that such laws, as now seem to bear hard on the colonies, would (when judged by such a parliament for the best interest of the whole, be more cheerfully submitted to, and ■■■ easily executed.

I should hope too, that by such an union the people of Great Britain, and the people of the colonies would learn to consider themselves, ■■■ not belonging to different communities with different interests, but to one community with ■■■ interest; which I imagine would contribute to strengthen the whole, and greatly lessen the danger of future separations.

■■■ is, I suppose, agreed to be the general interest of any ■■■ that ■■■ people be numerous and rich; ■■■ ■■■ to fight in its defence, and ■■■ to pay sufficient taxes to defray ■■■ charge; for these circumstances tend to the security of the state, and its protection from foreign power. ■■■ it seems not of so much importance, whether the fighting be done by John or Thomas, or the tax paid by William or Charles. The iron manufacture employs and enriches British subjects, but is it of any importance to the state, whether the manufacturer lives ■■■ Birmingham or Sheffield, or both; since they ■■■ still within its bounds, and their wealth and persons still ■■■

its command? Could the Goods in Sand-
land dry by banks, and land equal to a large
county thereby grained to England, and pre-
sently with English inhabitants, would it
right deprive such inhabitants of the
common privileges enjoyed by other English-
men, the right of vending their produce in the
same ports of making their shoes, be-
cause a merchant in shoemaking, living on
the old land, might fancy it more for his ad-
vantage trade or make shoes for them?
Would this be right even if the land were
gained at the expense of the state? And
would it not seem less right, if the charge
and labour of gaining the additional territory
to Britain had been borne by the settlers
themselves? And would not the hardships
appear yet greater, if the people of the
country should be allowed to representative-
in the parliament enacting such impositions?
Now I look on the colonies so many
less gain'd to Great Britain, and more advan-
talous to it, than if they had been gain'd
out of the sea around its coasts, and join'd to
its lands, nor being in different climates, they
afford greater variety of produce, and materi-
als for the manufactures, and being so paral-
lel by the ocean, they increase much more its
commerce and union, and, since they are all
included in the British empire, which by
this extendeth it by their means, and the
strength and wealth of the parts is the
strength and wealth of the whole, what
part is it to the general state, whether a rich-
land, a smith, or a better, grows rich in
Old or New England? and if, through
this of the people, two smiths are wanted
for one employed before, why may not the
new smith be allowed to live and thrive in
the new country, as well as the old one in the
old? In this, why should the countenance of
a state be partially shew'd to its people, un-
less it be most in favour of those who have
most merit? And if there be any difference,
those who have most contributed to enlarge
Britain's empire and commerce, increase her
strength, her wealth, and the numbers of her
people, the wish of their own lives and pri-
vate fortunes in and strange countries,
methinks ought rather to expect some prefer-
ence. With the greatest respect and esteem,
I have the honour to be, your excellency's most
obedient and humble servant,

B. FRANKLIN

*Plan for settling two Western Colonies in
North America, with Reasons for the Plan,
1754.*

The great country back of the Apalachean

was given to governor Pennell 1754
purpose of being inserted in his memorial
Extract of a Memorial drawn by order of and pre-
sented to the royal highness the duke of Cumberland
T. Pennell
In other parts of the frontier are not the im-
mediate and country of Indians, some other

mountains, on both sides the Ohio, and be-
tween that river and the lakes we well
known, both to the English French, to be
one of the finest North America, for the
extreme richness and fertility of the land,
healthy temperature of the air, mild-
ness of the climate, the plenty of hunting
fishing, and fowling, the facility of trade
with the Indians, and the vast convenience
of inland navigation water carriage by the
lakes and great rivers, many hundred of
leagues around

From the natural advantages I must not
doubtedly (perhaps in less than another cen-
tury) become a populous and powerful domi-
nion, and a great accession of power either
to England or France

The French are now making open ac-
croachments these territories, and enhance
of our known rights, and, if we longer de-
lay to settle that country, and otherwise in to pos-
sess it, these inconveniences and mischiefs
will probably follow

I Our people, being confined to the coun-

try, of course should be the more confined
thing can be more confined than in a narrow
even this small country, and, if we longer de-
lay to settle that country, and otherwise in to pos-
sess it, these inconveniences and mischiefs
will probably follow

For a time which expects see us with the
that we have always been due to settle the French
have been the first, and at this time, I think
nothing than settling, and that with our settle-
ments have been such, and especially made in
French settlements, themselves in the west, and
Indians have been able to travel as far as the
fact I found the property of the man, settling
himself in these parts, I am not sure, but
not the immediate evidence of having any and
these. There is a new settlement, and it is
will not only in the present, but in the future, it
returns a part of the present, and it is
strength and unity to our country, and it is
and give us power in our country, and it is
one of us, above all this, the state, the state
strength of our settlements, and it is
only proper and cheap, but it is not
The English settlements, as they are in present, from
claimed are absolutely at stand, they are settled un-
to the mountains, and in the mountains there is
where French land settles in the settlement, in-
sufficient to support the, and it is not itself in
power, in communication with the present, and
the state

The English would advance one step farther
towards the French, where they are, and it is
by one large, separate, a nation, with a nation
and military power, where such should settle, I
do not take upon me to say, at present, I only
point out the necessity, and nature of it, in settling
two colonies, one in the west, and one in the
year, and more, and if I might, I would, I would
claiming, I should claim, and it is not, and it is
and only require, and proper, one at the back
of Virginia, filling up the vacant space between
the nations and southern confederacy, and connecting
our western our barrier, other, and it is
of the Ohio, or the great river, or wherever, and it is
the New England, and it is
mentioned above in the
vernor Pennell, Administration of the Colonies
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try between the sea and the mountains, cannot much more increase in number; people increasing in proportion to their means of subsistence. (See the Observations on the Increase of Mankind, &c. Vol. II.)

2. The French will increase much more, by acquiring and plenty of subsistence, and become a great people behind us.

3. Many of our debtors, and loose English people, German servants, and slaves, will probably desert to them, their numbers and strength, the lessening and weakening of

4. They will cut us off from all alliance with the western Indians, to the great prejudice of Britain, by preventing the sale and consumption of its manufactures.

5. They will both in time of peace and war (as they have always done against New England) the Indians on our frontiers, and scalp our people, and drive in advanced settlers; and so, in preventing our obtaining more subsistence by cultivating of new lands, they discourage marriages, and to keep our people from increasing: thus (if the expression may be allowed) killing thousands of our children before they are born—

If two strong colonies of English were settled between the Ohio and lake Erie, in the places hereafter to be mentioned,—these advantages might be expected:

1. They would be a great security to the frontiers of our other colonies; by preventing the incursions of the French and French Indians of Canada, on the back parts of Pennsylvania, Maryland, Virginia, and the Carolinas; and the frontiers of such colonies would be much more easily defended, those of the colonies last mentioned now can be, will appear hereafter.

2. The dreaded junction of the French settlements in Canada with those of Louisiana would be prevented.

3. In case of a war, it would be easy, from those new colonies, to annoy Louisiana, by going down the Ohio and Mississippi; and the southern part of Canada, by sailing over the lakes; and thereby confine the French within narrow limits.

4. We should the friendship and trade of the Miami and Twigtwees (a numerous people consisting of many tribes, inhabiting the country between the west end of lake Erie, and the south end of lake Huron, and Ohio) who are present dissatisfied with the French, fond of the English, and would gladly encourage and protect an English settlement in or near their country, as some of their chiefs have declared in writer of this memoir. Further, by means of lakes, Ohio, the Mississippi, our trade might be extended through a

country, among many numerous Indian nations, greatly to the benefit of Britain.

5. The settlement of all the intermediate lands, between the present frontiers of our colonies on one side, and the lakes and Mississippi on the other, would be facilitated and speedily executed, to the great increase of English men, English trade, and English power.

The grants to most of the colonies of long narrow slips of land, extending west from the Atlantic to the South Sea. They are much longer for their breadth; the extremes at too great a distance; and therefore unfit to be continued under their present dimensions.

Several of the old colonies may conveniently be limited westward by the Alleghany or Apalachian mountains; and new colonies formed of those mountains.

A single old colony does not seem strong enough to extend itself otherwise than inch by inch: it is a venture a settlement far distant from the main body, being unable to support it: but if the colonies were united under one governor-general and grand council, agreeable to the Albany plan, they might easily, by their joint force, establish one or more new colonies, whenever they should judge it necessary or advantageous to the interest of the whole.

If such union should take place, it is proposed that two charters be granted, each for some considerable part of the lands west of Pennsylvania and the Virginian mountains, a number of the nobility and gentry of Britain: with such Americans as shall join them in contributing to the settlement of the lands, either by paying a proportion of the expenses of making such settlements, or by actually going thither in person, and settling themselves and families.

That by such charters it be granted, that every actual settler be entitled to a tract of acres for himself, and acres for every poll in the family he carries with him: and that every of guineas be entitled to a quantity of acres, equal to the share of a single settler, for every such of guineas contributed and paid to the colony treasurer; a contributor for shares have an additional share gratis; that settlers may likewise be contributors, and have right of land in both capacities.

That as many and as great privileges and powers of government be granted to the contributors settlers, his majesty in his wisdom shall think for their benefit and encouragement, consistent with the general good of the British empire; for extraordinary privileges and liberties, with lands on easy terms, are strong inducements to people to hazard their persons and fortunes in settling new countries: and such powers of government as (though suitable to the circumstances,

and fit ■■■ trusted with an infant colony) might ■■■ judged unfit, when it becomes populous and powerful; these might be granted for a ■■■ only; as the choice of their own governor for ninety-nine years; the support of government in the colonies of Connecticut and Rhode Island (which ~~was~~ enjoy that ■■■ other like privileges) being much less expensive, than in the colonies under the immediate government of the crown, and the constitution ■■■ inviting.

That the first contributors to the ■■■ of guineas be empowered to choose a treasurer to receive ■■■ contribution.

That no contributions be paid till the sum of thousand guineas ■■■ subscribed.

That the money thus raised be applied ■■■ the purchase of the lands from the Six Nations and other Indians, and of provisions, stores, ■■■ ammunition, carriages, &c. for the settlers; who, after having entered their names with the treasurer, or person by him appointed to receive and enter them, ^{are}, upon public notice given for that purpose, to rendezvous at a place to be appointed, and march in ■■■ body to the place destined for their settlement, under the charge of the government to be established over them. Such rendezvous and march however not to be directed, till the number of names of settlers entered, capable of bearing arms, amount at least to thousand —

It is apprehended, that a great sum of money might be raised in America ■■■ such a scheme as this; for there are many who would be glad of any opportunity, by advancing a small sum at present, to secure land for their children, which might ■■■ a few years become very valuable; and a great number it is thought of actual settlers might likewise ■■■ engaged (some from each of our present colonies) sufficient to carry it into full execution by their strength and numbers; provided only, that the crown would be at the expense of reimbursing the little forts the French have erected ■■■ their encroachments on his majesty's territories, and supporting a strong one ■■■ the falls of Niagara, with ■■■ few small armed vessels, ■■■ half-galleys to cruise ■■■ the lakes.

For the security of this colony in its infancy, a small fort might be erected and for some time maintained ■■■ Buffalo-creek on the Ohio, above the settlement; and another at the mouth of the Tioga, on the south side of lake Erie, where ■■■ port should be formed, ■■■ a town erected, for the trade of the lakes.—The colonists for this settlement might march by land through Pennsylvania.

The ■■■ Sciota, which runs into the Ohio about two hundred miles below Logg Town, ■■■ supposed the fittest seat for the other colony; there being for forty miles on each side of it, and quite up to its heads, a body of ■■■ rich land; the finest spot of its bigness in all North Ame-

rica, and has the particular advantage of sea-coal in plenty (even above ground in two places) for fuel, when the woods shall be destroyed. This colony would have the trade of the Miamis ■■■ Twightwees; and should, ■■■ first, have a small fort ■■■ Hockockin, ■■■ the head of the river; and another near the mouth of Wabash. Sanduski, a French fort near the lake Erie, should also be taken, and ■■■ the little French forts south and west of the lakes, quite to the Mississippi, ■■■ removed, ■■■ taken ■■■ garrisoned by ■■■ English.—The colonists, for this settlement might assemble near the heads of the rivers in Virginia, and march over land to the navigable branches of the Kanawha, where they might embark with all their baggage and provisions, and fall into the Ohio, not far above the mouth of Sciota. Or they might rendezvous at Will's Creek, and go down the Monongahela to the Ohio.

The fort and armed vessels at the strait of Niagara would be a vast security ■■■ the frontiers of these new colonies against any attempt of the French from Canada. The fort at the mouth of the Wabash would guard that river, the Ohio, and Outawa river, in case any attempt from the French of Mississippi. (Every fort should have ■■■ small settlement round it, as the fort would protect the settlers, and the settlers defend the fort and supply it with provisions.)

The difficulty of settling the first English colonies in America, at so great a distance from England, must have been vastly greater than the settling these proposed new colonies, for ■■■ would be the interest and advantage of ■■■ the present colonies to support these new ones; as they would cover their frontiers, and prevent the growth of the French power behind or near their present settlements, and the new country is nearly at equal distance from all the old colonies, and could easily be assisted from all of them.

And ■■■ there ■■■ already in all the old colonies many thousands of families that are ready to swarm, wanting more land, the richness and natural advantage of the Ohio country would draw most of them thither, were there but ■■■ tolerable prospect of a safe settlement. So that the ■■■ colonies would soon be ■■■ of people; and from the advantage of their situation, become much terrible to the French settlements, than those are now to us. The gaining of the back Indian trade from the French, by the navigation of the lakes, &c. would of itself greatly weaken our enemies.—it being ■■■ their principal support, it seems highly probable, that ■■■ time they must be subjected to the British crown, or driven out of the country.

Such settlements may better be made now ■■■ fifty years hence, because it is easier to ■■■ ourselves, and thereby prevent the French settling there, ■■■ they ■■■ ■■■

nation that has carried on a war with disadvantage, is unable to do it, can say, under such circumstances, be independent; and while either side thinks itself in a condition to demand indemnification, no one, in his senses, but will, *ceteris paribus*, prefer an indemnification, that is a cheaper effectual security than any other he can think of. Nations in this situation demand and cede countries by almost every treaty of peace that is made. The French part of the island of St. Christophers was added to Great Britain in circumstances altogether similar to that in which a few months may probably place the country of Canada. Farther security has always been deemed a motive with a conqueror to be moderate; and even the vanquished insist upon security as a reason for demanding what they acknowledge they could not otherwise properly ask. The security of the frontier of France on the side of the Netherlands was always considered in the negotiation, that began at Gertrudenburg, and ended with the war. For this they demanded and had Cape Breton. But a war, concluded to the advantage of France, has always something to the power, either of France, the house of Bourbon. Even that of 1733, which she commenced with declarations of her having no ambitious views, and finished by a treaty, which the ministers of France repeatedly declared, that she desired nothing for herself, in effect gained for her Lorraine, indemnification ten times the value of all her North American possessions. In short, security and quiet of princes and states have been deemed sufficient reasons, when supported by power, for disposing of rights; and such dispositions have been looked on as a mark of moderation. It has always been the foundation of the most general treaties. The security of Germany was an argument for yielding considerable portions there to the Swedes: and the security of Europe divided Spanish monarchy by the partition treaty, made between powers who had no other right to dispose of any part of it. There can be no cession that is not supposed at least, to increase the power of the party whom it is made. It is enough to say he has a right to ask it, and that he does it merely to the purposes of a dangerous ambition.

Canada, in the hands of Britain, will endanger the kingdom of France as little as any other cession; and from its situation and circumstances cannot be hurtful to any other power. Rather, if peace is the advantage, this cession may be such to Europe. The present war teaches us, that disputes arising in America, may be an occasion of embroiling Europe, who have no business there. If the French remain in Canada, Louisiana, and the boundaries you will between us and

them, we must border on each other for more than fifteen miles. The people on the frontiers are generally the refuse of both nations, often of the worst morals, the least discretion; remote from the eye, the prudence, and the influence of government. Injuries are therefore frequently, in some part or other of a long frontier, committed on both sides, provoked, the colonies are first engaged, and then the mother countries. And two great nations can be at war in Europe, but no other prince or state thinks it a convenient opportunity to revive some ancient claim, seize an advantage, obtain territory, or enlarge power at the expense of a neighbour. The flames of war, once kindled, often spread far and wide, and the mischief is infinite. Happy it proved to both nations, that the Dutch were prevailed on finally to cede the New Netherlands (now the province of New York) to us at the peace of 1674; a peace that has ever continued between us, but must have been frequently disturbed, if they had retained the possession of that country, bordering several hundred miles on our colonies of Pennsylvania westward, Connecticut and the Massachusetts eastward. Nor is it to be wondered at, that people of different language, religion, manners, should in those remote parts engage in frequent quarrels; when we find, that even the people of our own colonies have frequently been exasperated against each other, in their disputes about boundaries, and proceed to open violence and bloodshed.

2. Erecting forts in the back settlements, almost in no instance a sufficient security against the Indians and the French; but the possession of Canada implies every security, and ought to be had, while we are powerful.

But the remarker thinks we shall be sufficiently secure in America, if we raise English forts such passes as may we make respectable to the French and the Indian nations. The security desirable in America may be considered of three kinds. 1. A security of possession that the French shall not drive us out of the country. 2. A security of our planters from the inroads of the Indians and the murders committed by them. 3. A security to the British that we shall not be obliged, on every war, to repeat the immense expense occasioned by this, to defend its possessions in America. Forts, the most important passage, may, I acknowledge, be of use to obtain the first kind of security: but as those situations are advanced beyond the inhabitants, the expense of maintaining and supplying the garrisons will be very great, in time of full peace, and immense on every interruption of it; it is easy for skulking-parties of enemy, in such long marches through the woods, to inter-

cept and cut off our convoys, unless guarded continually by great bodies of men.—The second kind of security will not be obtained by such forts, unless they were connected by a wall like that of China, from one end of our settlements to the other. If the Indians, when war, Europeans, with great armies, heavy cannon, baggage, and carriages; the passes through which alone such armies could penetrate our country, or receive their supplies, being secured, all might be sufficiently secure; but the case is widely different. They go to war, as they call it, in small parties; from fifty men down to five. Their hunting life has made them acquainted with the whole country, and scarce any part of it is impracticable to a party. They travel through woods by night, and know how to conceal their tracks. They pass easily between your forts undiscovered; and privately approach the settlements of your frontier inhabitants. They need no convoys of provisions to follow them; for whether they are shifting from place to place in the woods, lying in wait for an opportunity to strike a blow, every thicket and every stream furnishes so small a number with sufficient subsistence. When they have surprised separately, and murdered and scalped a dozen families, they are gone with inconceivable expedition through unknown ways: and it is very rare that pursuers have any chance of coming up with them. In short, long experience has taught our planters, that they rely upon forts as a security against Indians; the inhabitants of Hackney might as well rely upon the tower of London, to secure them against highwaymen and housebreakers.—As to the third kind of security, that we shall not, in a few years, have all we have done to do over again in America, and be obliged to employ the same number of troops, and ships, at the same immense expense, to defend our possessions there, while we are in proportion weakened here: such forts I think, cannot prevent this. During a peace, it is not to be doubted the French, who are adroit fortifying, will likewise erect forts in the most advantageous places of the country we leave them; which will make it more difficult than ever to be reduced in case of another war. We know by experience of this war, how extremely difficult it is to march an army through the American woods, with necessary cannon and stores, sufficient to reduce a very slight fort. The accounts at the treasury will tell you, what amazing sums we have necessarily spent in the expeditions against two very trifling forts, Duquesne and Crown Point. While the French retain their influence over the Indians, they can easily keep our long extended frontier in continual alarm, by a very few of those people; and with a small number of regulars and

militia, in such a country, find they can keep an army of ours in full employ for several years. We therefore shall not need to be told by our colonies, that if we leave Canada, however circumscribed, to the French, "we have done nothing;" we shall soon be made sensible ourselves of this truth, and to our cost.

I would not be understood to deny, that even if we subdue and retain Canada, some few forts may be of use to secure the goods of the traders, and protect the commerce, in case of any sudden misadventure with any tribe of Indians: but these forts will be best under the care of the colonies interested in the Indian trade, and garrisoned by their provincial forces, and at their own expense. Their own interest will then induce the American governments to take of such forts in proportion to their importance, and see that the officers keep their corps full, and mind their duty. But any troops of ours placed there, and accountable here, would, in such remote and obscure places, and at so great a distance from the eye and inspection of superiors, soon become of little consequence, even though the French were left in possession of Canada. If the four independent companies, maintained by the crown in New York more than forty years, at a great expense, consisted, for most part of the time, of faggots chiefly; if their officers enjoyed their places as sinecures, and were only, as a writer of that country styles them, a kind of military monks; if this was the state of troops posted in a populous country, where the disposition could not be so well concealed; what may we expect will be the case of those, that shall be posted two, three, or four hundred miles from the inhabitants, in such obscure and remote places as Crown Point, Oswego, Duquesne, or Niagara? they would scarce be even faggots; they would dwindle to mere names upon paper, and appear no where but on the muster-rolls.

Now all the kinds of security we have mentioned are obtained by subduing and retaining Canada. Our present possessions in America are secured; our planters will no longer be massacred by the Indians, who, depending absolutely on us for what are now become the necessities of life to them (guns, powder, hatchets, knives, and clothing) and having no other Europeans, that either supply them, or instigate them against us; there is no doubt of their being always disposed, if we treat them with common justice, to live in perpetual peace with us. And with regard to France, she cannot, in case of another war, put us to the immense expense of defending that long extended frontier; we shall then, as it were, have our backs against a wall in America; the sea coast will be easily protected by our superior naval power: and here "our own watchfulness and our own strength

will be properly, and cannot but be successfully employed. In this situation, the force now employed in that part of the world, may be spared for any other service here or elsewhere; so that both the offensive and defensive strength of the British empire, on the whole, will be greatly increased.

But to leave French in possession of Canada, when it is in our power to remove them and depend (as the minister proposes) on our own "strength and watchfulness" to prevent the mischiefs that may attend it, seems neither safe nor prudent. Happy we now are, under the best of kings, and in the prospect of a succession promising every felicity a nation blessed with; happy too in the wisdom and vigour of every part of the administration; we cannot, we ought not to promise ourselves the uninterrupted continuance of those blessings. The safety of a considerable part of the state, and the interest of the whole, are not to be trusted to the wisdom and vigour of future administrations; when a security is to be had more effectual, more constant, and much less expensive. They, who are moved by the apprehension of dangers so remote, as that of the future independence of our colonies (a point I shall hereafter consider) scarcely consistent with themselves, when they suppose we may rely on the wisdom and vigour of administration for their safety.—I should indeed it less material whether Canada were ceded to us or not, if I had in view only the security of possession in our colonies. I entirely agree with the remarker, that we are in North America "a far greater continental as well as naval power;" and that only cowardice or ignorance subject our colonies there to a French conquest. But for the same reason I disagree with him widely upon another point.

3. *The blood and treasure spent in the American wars, not spent in the cause of the colonies alone.*

I do not think, that our "blood and treasure has been expended," as he intimates, "in the cause of the colonies," and that we are "making conquests for them;" yet I believe this is too common an error. I do not say, they are altogether unconcerned in the event. Inhabitants of them are, in common with the other subjects of Great Britain, anxious for the glory of her crown, the extent of her power and commerce, the welfare and future repose of the whole British people. They could not therefore but take a large share in the affronts offered to Britain; and have been animated with a truly British spirit to exert themselves beyond their strength, against their evident. Yet so unfortunate have they been, that their virtue has made against them; for upon no better

foundation than this have they been supposed the authors of a war, carried on for their advantage only. is a great mistake to imagine that the American country in question between Great Britain and France is claimed as the property of any individuals or public body in America; or that the possession of it by Great Britain is likely, in any lucrative view, to redound at all to the advantage of any person there. On the other hand, the bulk of the inhabitants of North America are land-owners, whose lands are inferior in value to those of Britain, only by the want of an equal number of people. It is true, the accession of the large territory claimed before war began (especially if that be secured by the possession of Canada) will tend the increase of the British subjects faster, than if they had been confined within the mountains: yet the increase within the mountains only would evidently make the comparative population equal to that of Great Britain much sooner than it can be expected, when our people are spread over a country six times as large. I think this is the only point of light in which this account is to be viewed, and is the only one in which any of the colonies are concerned.—No colony, no possessor of lands in any colony, therefore, wishes for conquest, or can be benefited by them, otherwise than as they may be a means of securing peace on their. No considerable advantage has resulted to the colonies by the conquests of this war, or can result from confirming them by the peace, but what they must enjoy in common with the rest of the British people; this evident drawback from their share of these advantages, they will necessarily lessen, or at least prevent the increase of the value of what makes the principal part of their private property—their land. A people, spread through the whole tract of country, on this side the Mississippi, and secured by Canada in our hands, would probably for some centuries find employment in agriculture, by free us at home effectually from our fears of American manufactures. Unprejudiced men well know, that all the penal and prohibitory laws that were ever thought on will not be sufficient to prevent manufactures in a country, whose inhabitants surpass the number that can subsist by the husbandry of it. That this will be the case in America soon, if our people remain confined within the mountains, and almost as soon should it be unsafe for them to live beyond, though the country be ceded to us, no man acquainted with political and social history can doubt. Manufactures are founded in poverty: it is the multitude of poor without land in a country, and who must work for others at low wages or starve, enables undertakers to carry on a manufacture, and afford it cheap enough to prevent

the importation of the same kind from abroad, and to bear the expense of its own exportation. —But no man, who can have a piece of land of his own, sufficient by his labour to subsist his family in plenty, is poor enough to be a manufacturer, and work for a master. Hence, while there is land enough in America for our people, *there can never be manufactures to any amount or value.* It is a striking observation of a very able pen,* that the natural livelihood of the thin inhabitants of a forest country is hunting; that of a greater number, pasturage: that of a middling population, agriculture; and that of the greatest, manufactures; which *must* *subvert* the bulk of the people in a full country, or they *must* be *supported* by charity, or perish. The extended population, therefore, that is most advantageous to Great Britain, will be best effected, because only effectually secured, by the possession of Canada.

So far as the being of our present colonies in North America is concerned, I think indeed with the remarker, that the French there are not “an enemy to be apprehended;” —but the expression is too vague to be applicable to the present, or indeed to any other case. Algiers, Tunis, and Tripoli, unequal as they are to this nation in power and numbers of people, are enemies to be still apprehended: and the highlanders of Scotland have been so for many ages, by the greatest princes of Scotland and Britain. The wild Irish were able to give a great deal of disturbance even to queen Elizabeth, and cost her more blood and treasure than her war with Spain. Canada, in the hands of France, has always stunted the growth of our colonies, in the course of this war; and indeed before it, has disturbed and vexed even the best and strongest of them; has found means to murder thousands of their people, and unsettle a great part of their country. Much more able will it be to starve the growth of an infant settlement. Canada has also found *means* *to* *spend* *two or three millions a year in America;* and a people, how small soever, that in their present situation, can do *as much* *as we* have a war with them, is, methinks, “an enemy to be apprehended.”

Our North American colonies are to be considered as the *frontier of the British empire on that side.* The frontier of any dominion being attacked, it becomes not merely “the cause” of the people immediately *adjacent* (the *frontier*) but properly “the cause” of the whole body. Where the frontier people owe and pay obedience, there they have a right to look for protection: no political proposition is better established than this. It is therefore invidious, to represent the “blood and treasure”

spent in this war, as spent in “the cause of the colonies” only; and that they are “abundant and ungrateful,” if they think we have done nothing. *“Make conquests for them, and reduce them to gratify their ‘vain ambition,’ &c.* It will not be a conquest for them, nor gratify any vain ambition of theirs. It will be a conquest for the whole; and all our people will, in the increase of trade, and the ease of taxes, find the advantage of it. Should we be obliged at any time, to make a war for *the* protection of our commerce, and to secure the exportation of our manufactures, would it *be* to represent such a war, merely as *the* and treasure spent in the cause of the weavers of Yorkshire, Norwich, or the West; the cutlers of Sheffield, or the buttonmakers of Birmingham? I hope it will appear before I end these sheets, that if ever there *was* a national war, this is truly such a *war* in which the interest of the whole *is* directly and fundamentally concerned. Those, who would be thought deeply skilled in human nature, affect to discover self-interested views every where, *in* the bottom of the fairest *and* generous conduct. Suspicious and charges of this kind meet with ready reception and belief *in* the minds even of the multitude, and therefore less acuteness and address, than the *orator* is possessed of, would *be* sufficient *to* persuade the nation generally, that all the zeal and spirit, manifested and exerted by the colonies in this war, was only in “their own cause,” to “make conquest for themselves,” to engage us to make more for them, to gratify their own “vain ambition.”

But should they *not* humbly address the mother-country in *the* and the *remarks* of the remarker, *her* their grateful acknowledgments *to* *the* and treasure *spent* in “their cause,” confess *that* enough had not been done “for them;” *that* “*England* *first*, *in* proper passes, will, with the wisdom and vigour of her administration,” be a sufficient future protection; express *her* desires that their people may be *confined* within the *limits*, lest, if they be suffered to spread and extend themselves in *the* fertile and pleasant country on *the* other side, they should “increase infinitely from *the* causes,” “live wholly on their own labour” and become independent; beg therefore *that* the French *may* be suffered to remain in possession of Canada, as their neighbourhood may be useful to prevent our increase, and the removing them may “in its consequences be even dangerous.” —I *should* such an address from the colonies make its appearance here (though, according to the remarker, *it* would be a most just and reasonable one) would *not* might *be* with *justice* answered: —“We understand you, gentlemen, perfectly well:

* Adam Smith, who had not at *that* time printed *his* *Economy*.

you have only your interest in view: you want to have the people confined within your present limits, that in a few years the lands you are possessed of may increase tenfold in value! you want to reduce the price of labour, by increasing numbers on the same territory, that you may be able to set manufactures and vie with your mother-country! you would have your people kept in a body, that you may be more able to dispute the commands of the crown, obtain an independency. You would have the French left in Canada, to exercise your military virtue, and make you a warlike people, you may have more confidence to embark in schemes of disobedience, and greater ability to support them! You have tasted , the sweets of two or three millions sterling per annum spent among you by our fleets and forces, and you are unwilling to be without a pretence for kindling up another war, and thereby occasioning a repetition of the same delightful doses! But, gentlemen, us to understand interest a little likewise: we the French from Canada, that you may live in peace, and we be no more drained by your quarrels. You shall have land enough to cultivate, that you may have neither necessity nor inclination to go into manufacture for you, and govern you.

A reader of the Remarks may be apt to say, if this writer would have us restore Canada, on principles of moderation, how can we, consistent with those principles, retain Gaudaloupe, which he represents of so much greater value!—I will endeavour to explain this, because by doing it, I shall have an opportunity of showing the truth and good sense of the answer to the interested application I have just supposed: the author then is only apparently and not really inconsistent with . If we can obtain the credit of moderation by restoring Canada, it is well: but should, however, restore it at all events; because it would not only be of no use to us; but “the possession of it (in his opinion) may in its consequences be dangerous.” As how? Why, plainly, (at length it comes out) if the French are not left there to check growth of our colonies, “they will extend themselves almost without bounds into the inland parts, and increase infinitely, from all causes; becoming a numerous, hardy, independent people; possessed of a strong country, communicating little or not at all with England, living wholly on their own labour, and in process of time knowing little and inquiring little about the mother-country.” In short, according to this writer, our present colonies are large enough and numerous enough; and the French ought to be left in North America to prevent increase, they become not only useless, but dangerous Br I agree with the gentleman, that

with Canada in our possession, our people in America will increase amazingly. I know, that their common rate of increase, where they are not molested by the enemy, is doubling their numbers every twenty-five years, by natural generation only; exclusive of the of foreigners.* I think this increase continuing would probably, in a century more, make the number of British subjects on that side the water more numerous than they now are on this; But,

4. *Not necessary that the American colonies should cease being useful to the mother-country. Their preference over the West-Indian colonies stated.*

I am far from entertaining on that account, any of their becoming either useless or dangerous to us; and I look on those fears to be merely imaginary, and without any probable foundation.—The remarker is reserved in giving his reasons; as in his opinion this “is not a fit subject for discussion.”—I shall give mine, because I conceive it a subject necessary to be discussed; and the rather, as those fears, how groundless and chimerical soever, may by possessing the multitude, possibly induce the ablest ministry to conform to them against their own judgment; and thereby prevent the assuring to the British name and nation a stability and permanency, that no man acquainted with history durst have hoped for, till our American possessions opened the pleasing prospect. The remarker thinks, that our people in America, “finding no check from Canada, would extend themselves almost without bounds into the inland parts, and increase infinitely from all causes.” The very reasons he assigns for their so extending, and which is indeed the true one (their being “invited to it by the pleasantness, fertility, and plenty of the country,”) may satisfy us, that this extension will continue to proceed, as long as there remains any pleasant country within their reach. And if we even suppose them confined by the waters of the Mississippi westward, by those of St. Lawrence and the lakes to the northward; yet still we shall leave them room enough to increase, even in the manner of settling now practised there, till they amount to perhaps a hundred millions of souls. This must take some centuries to ful-

* The reason of this greater increase in America than in Europe is, settled countries, all farms, offices, and employment full; many people refrain from marriage till they see an opening, in which they can settle themselves, with a reasonable prospect of maintaining a family; but in America, it being easy to obtain land, which, with moderate labour will afford subsistence and something to spare, people marry more readily and earlier in life, whence arises a numerous offspring and the swift population of those countries. It is a common error, that we cannot fill our provinces or increase the number of them, without draining of its people. The increase alone of our is sufficient for both those purposes. [in 1700.]

fil: and in the mean time, this nation must necessarily supply them with the manufactures they consume; because the new settlers will be employed in agriculture; and the new settlers will so continually draw off the spare hands from the old, that our present colonies will not, during the period we have mentioned, find themselves in a condition to manufacture, even for their own inhabitants, to any considerable degree, much less those who are settling behind them.

That the trade must, till the country becomes as fully peopled as England (that is for centuries to come) be continually increasing, and with it our naval power; because the ocean is so vast, and there, and on the ships, so many seamen must be raised, that the trade increases.—The body and the political differ in this; that the first is limited by nature to a certain stature, which, when attained, it cannot ordinarily exceed the other, by better government and more prudent policy, as well as by the change of manners and other circumstances, often takes fresh starts of growth, after being long at a stand; and may add tenfold to the dimensions it had for ages been confined to. The mother, being of full stature, is in a few years equalled by a growing daughter: but in the case of a mother-country and her colonies, it is quite different. The growth of the children tends to increase the growth of the mother, and so the difference and superiority is longer preserved. Were the inhabitants of this island limited to their present number by any thing in nature, or by unchangeable circumstances, the equality of population between the two countries might indeed sooner come to pass; but experience, in those parts of the island where manufactures have been introduced, teaches us—that people increase and multiply in proportion as the means and facility of gaining a livelihood increase: and that this island, if they could be employed, is capable of supporting a great present number of people. In proportion, therefore, as the demand increases for the manufactures of Britain, by the increase of people in her colonies, the number of her people at home will increase; with them, the strength as well as the wealth of the nation. In this point, let the reader compare in his mind the number and force of our present fleets, with those of Elizabeth's time,* before we consider our colonies. Let him compare the ancient, with the present number of our ships near our coast (Manchester, Liverpool, Kendal, Lancaster, Glasgow, and other countries round them) with any manufactures for our colonies (not to mention Leeds, Halifax, Sheffield, and Birmingham.) Let him consider what

there is in the numbers of people, buildings, rents, and the value of land and of the produce of land; even if he goes back no farther than is within man's memory. Let him compare those countries others on the same island, where manufactures have not yet extended themselves: observe the present difference, and reflect how much greater our strength may be (if men give strength) when our manufactures shall occupy every part of the island where they can possibly be exhibited.

But, ■■■ the objectors, "there is a certain distance from the ■■■ America, beyond which the expense of carriage will put a stop to the sale and consumption of your manufactures; and this, with ■■■ difficulty of making returns for them, will oblige the inhabitants to manufacture for themselves; of course, if you suffer your people to extend their settlements beyond that distance, your people become useless to you;" and this distance is limited by some to two hundred miles, by others to the Apalachian mountains.—Not to insist on a plain truth, that no part of a dominion, from whence a government may on occasion draw supplies and aids both of men and money (though at too great a distance to be supplied with manufactures from some other part) is therefore to ■■■ deemed useless to the whole; I shall ■■■ endeavour to show, that these imaginary limits of ■■■ city, ■■■ in point of ■■■ erce, are much too narrow. The inland parts of the continent of Europe are farther from the sea, than the limits of settlement proposed for America. Germany is full of tradesmen and artificers of all kinds, and the governments there are not all of them always favourable to the commerce of Britain; yet it is a well-known fact, that our manufactures find their way even into the heart of Germany. Ask ■■■ great manufacturers and merchants of the Leeds, Sheffield, Birmingham, Manchester, ■■■ Norwich goods; and they will tell you, ■■■ of them ■■■ their riders frequently through France or Spain, and Italy, up to Vienna, and back through the middle and northern parts of Germany, to show samples of their wares, ■■■ collect orders, which they receive by almost every mail, to a vast amount. Whatever charges arise on the carriage of goods are added to the value, and all paid by the ■■■ If these nations, over whom we can have no government, over whose assumption we can have no influence, but what arises from the cheapness and goodness of our ■■■ whose trade, manufactures, or ■■■ mercial connexions ■■■ not subject to the control of our laws, ■■■ those of our colonies certainly are in some degree; I say, if these nations purchase and consume such quantities of our goods, notwithstanding the ■■■ of their situation from the sea: how much less

* Vix. forty sail, some of more than forty guns.

likely is it that the settlers in America, who must for ages be employed in agriculture chiefly, should make cheaper for themselves the goods our manufactures at present supply with; even if we suppose the carriage five, six, or hundred miles from the as difficult and expensive, as the like distance into Germany: whereas in latter, the natural are frequently by political obstructions; I the intermixed territories and clashing interests of princes.* when we consider, inland parts of America are penetrated by great navigable rivers: and there are a number of great lakes, communicating with each other, with rivers, and with the sea, very portages here and there excepted; † that the (if one may be allowed the expression) of those lakes only, amount at least two thousand seven hundred miles, exclusive of the rivers running into them (many of which are navigable to a great boats and canoes, through of country;) how little likely is it, that the expense on the carriage of our goods into those countries should prevent the use of them. If the poor Indians in those remote parts are now able to pay for the linen, woollen, and they are at present furnished with by the French and English traders (though Indians have nothing but what they get by hunting, goods are loaded with all the impositions fraud knavery contrive enhance their value) will not industrious English farmers, settled in those countries, much better be to pay for what shall be brought them in the way of fair

* If it is asked, What can such farmers raise, wherewith to pay for manufactures they may want from us? I answer, that the inland parts of America in question are well known to be fitted for the production of hemp, flax, potash, and above all, silk; the southern parts may produce olive oil, raisins, currants, indigo, and cochineal. Not to mention horses and black cattle, which may easily driven the maritime markets, and at the time assist in conveying other commodities. That the commodities may easily, by water and land carriage, be brought to the

sea-ports from interior America, will not seem incredible, when we reflect, that hemp formerly came from the Ukraine and most southern parts of Russia to Wologda, and down the Dwina to Archangel; and thence, by a perilous navigation, round the North Cape to England, and other parts of Europe. It now comes from the same country up the Dnieper, and down the Duna,* with much land-carriage. Great part of the Russian iron, no high priced commodity, is brought three hundred by land and water from the heart of Siberia. Furs (the produce too of America) are brought to Amsterdam from all parts of Siberia, even the most remote, Kamtschatka. The country furnishes me with another instance of commerce. It worth while to keep up a mercantile communication between Pekin in China, and Petersburg. And of inland commerce exceed those of the courses by which, at several periods, the whole of the trade of the East was carried on. Before the prosperity of Mameluke dominion in Egypt, fixed the staple for the riches of the East at Cairo and Alexandria (whither they brought from the Red Sea) great part of those commodities were carried to the cities of Cashgar and Balk. (This gave birth to many towns, that still subsist upon the remains of their ancient opulence, amidst a people and country equally wild.) From thence those goods down the Amu (the Oxus) to the Caspian Sea, and up the Wolga to Astrachan; from whence they were carried over to, and down the Don, to the mouth of that river; and thence again the Venetians directly, and the Genoese Venetians indirectly (by way of Trebisonde) dispersed them through the Mediterranean and some other parts of Europe. Another part of those goods was carried over land from the Wolga to the river Duna and Neva; from both they were carried to the city of Wisbuy in (so eminent for its sea-laws;) and from the city Ladoga on the Neva, we are told they were even carried by the Dwina to Archangel; and from thence round the North Cape.—If iron and hemp will bear the charge of carriage from this inland country, other metals will, as well as iron; and certainly silk, since 3d. per is not above 1 per cent on the value, and amounts to 23d. per ton. If the growths of a country find their way out of it; the manufactures of the country where they will infallibly their way into it.

They, who understood economy and

* Sir C. Whitworth following assertion: "Each state in Germany is jealous of its neighbours and hence, rather than facilitate export or transit its neighbour's produce or manufactures, have all recourse to strangers." *State of Trade*, p. xxv.

† From New York into Lake Ontario, and land-carriage of the several portages altogether, amounts to but about twenty-seven. From Lake Ontario into Lake Erie, the land-carriage at Niagara is but about. All the lakes above Niagara communicate by navigable straits, so that land-carriage is necessary to go out of one into another. Frequent on Lake Erie, there but fifteen long land-carriage, and that a good wagon road, the River, of Ohio; which brings you into a navigation of many inland, if you the Ohio, the great river.

* The reader not confound the river Duna with the river Dwina.—The Duna of the is four hundred distant from the sea, the fork of the Mississippi about nine hundred: it is four hundred distant from Petersburg to Moscow, and nearly twice that to Rukia.

principles of manufactures, know, it is impossible to establish them in places not populous: and even in those that are populous, hardly possible to establish them to the prejudice of the places already in possession of them. Several attempts have been made in France and Spain, countenanced by government, to draw from us, and establish in those countries, our hardware and woollen manufactures; but without success. The reasons are various. A manufacture is part of a great system of commerce, which takes in conveniences of various kinds; methods of providing materials of all sorts, machines for expediting and facilitating labour, all the channels of correspondence for vending the wares, the credit and confidence necessary to found and support this correspondence, the mutual aid of different artisans, and a thousand other particulars, which time and long experience have gradually formed. A part of such a system cannot support itself without the whole: and before the whole can be obtained the part perishes. Manufactures, where they are in perfection, are carried on by a multiplicity of hands, each of which is expert only in his own part; no one of them a master of the whole; and, if by any means spirited away to a foreign country, he is lost without his fellows. Then it is a matter of the extremest difficulty to persuade a complete set of workmen skilled in all parts of a manufactory, to leave their country together, and settle in a foreign land. Some of the idle and drunken may be enticed away; but these only disappoint their employers, and serve to discourage the undertaking. By royal munificence, and an expense equal to the profits of the trade alone would not bear, a complete set of good and skilful hands are collected and carried over, they form much of the system imperfect, many things wanting to carry on the trade to advantage, so many difficulties to overcome, and the knot of hands so easily broken by death, dissatisfaction, and desertion; that they and their employers are discouraged together, and the project vanishes into smoke. Hence it happens, that manufactures are hardly ever lost, but by foreign conquest, or by some eminent interior fault in manners or government; or bad police oppressing and discouraging the workmen, or religious persecutions driving the sober and industrious out of the country. There is, in short, scarce a single instance in history of the contrary, where manufactures have once been firmly rooted. They sometimes start up in a new place; but are generally supported, like exotic plants, at more expense than they are worth for any thing but curiosity; until they become the refuge of the manufactures driven from the old country. The conquest of Constantinople, and final reduction of the Ottoman empire, dispersed many curious manufactures

into different parts of Christendom. The former conquests of its provinces, had before done the same. The loss of liberty in Verona, Milan, Florence, Pisa, Pistoia, and other great cities of Italy, drove the manufacturers of woollen clothes into Spain and Flanders. The latter first lost their trade and manufactures to Antwerp and the cities of Brabant; from whence, by persecution for religion, they were sent into Holland and England: while the civil wars, during the minority of Charles the First of Spain, which ended in the loss of the liberty of their great towns, ended too in the loss of the manufactures of Toledo, Segovia, Salamanca, Medina del Campo, &c. The revocation of the edicts of Nantes communicated, to all the protestant part of Europe, the paper, silk, and other valuable manufactures of France; almost peculiar at that time to that country, and till then in vain attempted elsewhere. To be convinced, that it is not soil and climate, nor even freedom from taxes, that determines the residence of manufacturers, need only turn our eyes on Holland; where a multitude of manufacturers are carried on (perhaps more than on the same extent of territory any where in Europe) and sold on terms upon which they cannot be had in any other part of the world. And this too is true of those groves, which, by their nature, the labour required to raise them, come the nearest to manufactures.

As to the place objection to the North American settlements, that they are in the same climate, and their produce the same as that of England;—in the first place it is not true; it is particularly not so of the countries now likely to be added to our settlements; and of our present colonies, the products, lumber, tobacco, rice, and indigo, great articles of commerce, do not interfere with the products of England: in the second place, a man must know very little of the trade of the world, who does not know, that the greater part of it is carried on between countries whose climates are very little. Even the trade between the different parts of these British islands is greatly superior to that between England and all the West India Islands put together.

If I have been successful in proving that a considerable number may and will subsist between us and our future most inland settlements in North America, notwithstanding their distance; I have more than half proved no other inconvenience will arise from their distance. Many men in such a country must "know," "think," and must "care" about the country they chiefly trade with. The juridical and other connexions of government are yet a faster hold than even commercial ties, and spread, directly and indirectly, far and wide. Business to be solicited

causes depending create a great intercourse, even where private property is not divided in different countries;—yet this division will always subsist, where different countries are ruled by the same government. Where a man has landed property both in the mother-country and the province, he will almost always live in the mother-country; this, though there were no trade, is singly a sufficient gain. It is said, that Ireland pays near a million sterling annually to its absentees in England: the balance of £1,000,000 from Spain, or even Portugal, is scarcely equal to this.

Let it be so. But have we not seen from America. There are many, to the writer's knowledge; and if there are at present but few of them, that distinguish themselves here by great expense, it is owing to the mediocrity of fortune among the inhabitants of the Northern colonies, and a more equal division of landed property, than in the West India islands, so that there are as yet but few large estates. But if those, who have such estates, reside upon and take care of them themselves, are they worse subjects than they would be if they lived idly in England?—Great merit is assumed for the gentlemen of the West Indies, on the score of their residing and spending their money in England. I would not depreciate that merit; it is considerable; for they might, if they pleased, spend their money in France: the difference between their spending it here and at home is not so great. What do they spend it in when they are here, but the produce and manufactures of this country—and would they not do the same if they were at home? Is it of any great importance to the English farmer, whether the West India gentleman comes to London and eats his beef, pork, and tongues, fresh; or has them brought to in the West Indies salted? Whether he has his English cheese and butter, or drinks his English ale, at London or in Barbadoes? Is the clothier's, or the mercer's, or the outler's, or the toyman's profit less, for their goods being worn and consumed by the same persons residing on the other side of the ocean? Would not the profits of the merchant and mariner be rather greater, and some addition made to our navigation, ships, and seamen? If the North American gentleman stays in his own country, and lives there in that degree of luxury and expense with regard to the use of British manufactures, that his fortune enables him to do; may not his example (from the imitation of superiors, so natural to mankind) spread the use of those manufactures among hundreds of families around him, and occasion a much greater demand for them, than it would do if he should remove and live in London? However this may be, if in our views of immediate advantage, it seems preferable, that the West India gentlemen of large fortunes

America should reside much in England; it is what may surely be expected, as that as such luxuries are acquired there. Their having "colleges of their own for the education of their youth," will not prevent it; a little knowledge and learning acquired increases the appetite for more, and will make the conversation of the learned on this side the water more strongly desired. Ireland has its university likewise; yet this does not prevent the immense pecuniary benefit we receive from that kingdom. And there will always be, in the conveniences of life, the politeness, the pleasures, the magnificence of the reigning country, many other attractions besides those of learning, to draw men of substance there, where they can (apparently at least) have the best bargain of happiness for their money.

Our trade to the West India islands, is undoubtedly a valuable one; but whatever is the amount of it, it has long been at a stand. Limited as our sugar planters are by the scantiness of territory, they cannot increase much beyond their present number; and this is an evil, as I shall show hereafter, that will be little helped by our keeping Guadaloupe. —The trade to our Northern colonies is not only greater, but yearly increasing with the increase of people: and even in a proportion as the people increase in number, and the ability of spending, as well as in numbers.^a

^a The author afterwards obtained accounts of the exports of North America, and the West India islands; by which it appeared that there had been some increase of trade to those islands, as well as to North America, though in a much less degree. The following extract from these accounts will show the amount of the exports to each, in two different terms of five years; the terms taken at ten years distance, to show the increase, viz.

First term, from 1764 to 1768, inclusive.		Second term, from 1764 to 1768, inclusive.	
Northern Colonies.		West India Islands.	
1764.....£ 640,114 12	4	1764.....£ 795,112 17	4
1768.....£ 754,945 4	2	1768.....£ 503,669 10	3
1767.....£ 730,648 8	2	1767.....£ 478,294 10	2
1766.....£ 380,943 10	2	1766.....£ 830,463 18	2
		1765.....£ 734,085 15	1

Total, £ 2,496,961 1 2 Total, £ 3,253,277 10 10
Difference, 122,920 10 4

£ 3,466,306 1 8

First term, from 1764 to 1768, inclusive.		Second term, from 1764 to 1768, inclusive.	
Northern Colonies.		West India Islands.	
1764.....£ 1,246,615 11	11	1764.....£ 683,676 3 0	0
1768.....£ 1,177,249 6 10	10	1768.....£ 694,667 13 3	3
1767.....£ 1,498,790 12 10	10	1767.....£ 733,454 16 3	3
1766.....£ 1,787,264 2 10	10	1766.....£ 776,460 0 6	6
1765.....£ 1,632,943 12 10	10	1765.....£ 577,571 12 11	11

Total, £ 7,414,057 4 3 Total, £ 3,767,941 12 11
Difference, 11 4

£ 7,414,057 4 3
In the first term, total of West India islands, 3,363,337 10 10
In the second term, ditto, 3,767,941 12 11

Increase, only £ 404,604 2 1
In the first term, ditto, 3,456,268 2 1
In the second term, ditto, 7,414,057 4 3

Increase, £ 3,927,789 1 1

I have already said, that our people in the northern colonies double in about 25 years, exclusive of the accession of strangers. That I speak within bounds, I appeal to the authentic accounts frequently required by the board of trade, and transmitted to that board by the respective governors; of which accounts I shall select one as a sample, being from the colony of Rhode Island* a colony that of all the others receives least addition from strangers. For the increase of our trade to those colonies, I refer to the accounts frequently laid before parliament, by the officers of the customs, and to the custom-house books: from which I have selected one account,* that of from England exclusive of

By these it appears, that the exports to the West India islands, and to the northern colonies, in the first term nearly equal the difference being only 121,492, (the 4th,) and in the second term, the amount is 11,170,000, and only 404,504, 2s. 1d.

Whereas the increase to the northern colonies is 2,047,744, 2s. 1d., almost four millions.

A large part of this increased demand for English goods may be ascribed to the armies and fleets we have had both in North America and the West Indies; and so much for what is consumed by the soldiers; their clothing, stores, ammunition, &c. sent from hence on account of the government, being (as is supposed) not including in these accounts of merchandise exported; but as the war has occasioned a great plenty of money in America, many of the inhabitants have increased their expenses.

N B These accounts do not include any exports from Scotland to America, which is doubtless proportionally considerable; nor the exports to the East.

This calculation carried on where Dr. Franklin left it. For four years, from 1770 to 1773 inclusively, the mean average annual exports to the West Indies is 994,468, and to the same parts of the North American plantations 2,919,000. But the annual averages of the first and second terms of the former were 673,884, and of the latter, 697,334, and 1,493,512.

In ten years therefore (taking the middle years of the century) the North American trade is found to have doubled the West Indian, in the next sixteen years it becomes greater by three fold. With respect to itself, the North American trade in 25 years (taking the extremes of the terms) had quadrupled: while the West India trade only only half: of which Jamaica alone something more than one chiefly in produce of quiet produced by the peace with the Warren negroes. Had the West Indian trade continued stationary, the North American trade would have quadrupled with respect to it, in 25 years; and this, notwithstanding the checks given to the latter, by their non-impatriation agreements and the encouragement of their manufactures.

These accounts to the trade, produced by the conclusion of the treaty of Paris, not touched upon by Dr. Franklin. The average annual export trade, from 1770 to 1773 inclusively, to the West India Islands, amounted to 258,284, to the ceded North American territory it had been 968,400. See Sir Charles Whitworth's State of Trade.

* Copy of the report of governor Hopkins to the board of trade, on the numbers of people in Rhode-Island.

In obedience to your lordship's commands, I have caused the within account to be taken by officers under oath. By it there were in this colony at this time 33,330 white persons, and 4307 blacks, chiefly negroes.

In the year 1700 by order of the lords proprietors of trade and plantations, an account was taken of the number of people in this colony, and then there appeared to be 15,302 whites, and 3503 blacks.

Again in the year 1740, by like order, an account was taken of the number of people in this colony, by which it appears there were at that time 29,733 whites, and 4373 blacks.

STEPHEN COLONY OF RHODE-ISLAND Nov 24. 1755.

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Scotland) to Pennsylvania; a colony most remarkable for the plain frugal of living of its inhabitants, and the most suspected of carrying on manufactures, on account of the number of German artizans, who known to have transplanted themselves into that country; though even these, in truth, when they come there, generally apply themselves to agriculture, and support and most advantageous employment. By this account it appears, that the exports to that province have in 25 years, increased nearly in the proportion of 17 to 1; whereas the people themselves, by other authentic accounts appear to have increased their numbers (the strangers who settle there included) in about 16 years, in the 25 years have increased in a greater proportion than as 11 to 1. The additional demand then, and consumption of goods from England, of 13 parts in 17 more than the additional number would require, must be owing to this; that the people having by their industry mended their circumstances, are enabled to indulge themselves in finer clothes, better furniture, and a more general use of all our manufactures than heretofore.

In fact, the occasion for English goods in North America, and the inclination to have and use them, is, and must be for ages to come, much greater than the ability of the people to pay for them; they must therefore they now do, deny themselves many things they would otherwise choose to have, or increase their industry to obtain them. And thus, if they should at any time manufacture some coarse article, which on account of its bulk or some other circumstance, could well be brought to them from Britain; it only enables them the better to pay for finer goods, that otherwise they could not indulge themselves in: so that the exports thither are not diminished by such manufacture, but rather increased. The single article of manufactures in these colonies, mentioned by the remarker, is hats made in New England. It is true, there have been, since the first settlement of that country, a few hatters there, drawn thither probably at the facility of getting beaver, while the woods in

An of the value of the exports from England to Pennsylvania, year, taken at different periods.

In 1723 they amounted only	£ 15,392 19 4
1729 they were	40,302 7 2
1731	36,000 6 7
1742	73,593 3 1
1747	82,404 17 7
1752	201,600 21 11
1757	206,426 6 5

N. B. The accounts for 1752 and 1753, were not completed; but those acquainted with the North American trade, know that the increase in those two years had been in still greater proportion: the last year being supposed to exceed any former year by a third, and this owing to the increased ability of the people to spend from the greater quantities of money circulating among them by the war.

little cleared, there was plenty of those animals. The case is greatly altered now. The beaver skins are not now to be had in New England, from very remote places and at great prices. The trade is accordingly declining there; so that, far from being able to supply in any quantity for exportation, they cannot supply their demand; it is well known, that some thousand persons thither yearly from London, Bristol, Liverpool, sold cheaper than the inhabitants of them of equal goodness. In fact, the colonies are so little suited for establishing of manufactures, that they are continually losing the branches they accidentally gain. The working brassiers, cutlery, pewterers, as well as hatters, who have happened to go there time to time and settle in the colonies, gradually drop the working part of their business, and import their respective goods from England, whence they can have them cheaper and better than they make them. They continue their shops indeed, in the same way of dealing; but become sellers of brassiery, cutlery, pewter, hats, &c. brought from England, instead of being makers of those goods.

3. The American colonies are dangerous to Great Britain.

Thus much as the apprehension of our colonies becoming useless to us. I shall next consider the other supposition, that their growth may render them dangerous.—Of this, I own, I have not the least conception, when I consider that we have already fourteen separate governments on the maritime coast of the continent; and, if we extend our settlements, shall probably have many more on the inland side. Those we now have are not only under different governors, but have different governments, different laws, different interests, some of them different religious persuasions, and different manners.—Their jealousy of each other is so great, that however they are united by an union of the colonies has long been, for their common defence and security against their enemies, and how each colony has been that of necessity; yet they have never been such an union among themselves. In questing their mother-country to establish for them. Nothing but the immediate command of the crown has been able to produce even the imperfect union, but lately there, of the forces of some colonies. If they could not agree to unite for their defence against the French and Indians, who were perpetually harassing their settlements, burning their villages, and murdering their people; can it reasonably be supposed there is any danger of their uniting against their own nation, which protects and encourages

them, with which they have many nexions and ties of blood, interest, and affection, and which, it is well known, they all love much more than they love one another?

In short, there are so many causes that operate to prevent it, that I will not say, an union amongst them for such a purpose is merely improbable, but impossible. And if the union of the whole is impossible, the attempt of a part must be madness; as those colonies which join the rebellion would join the mother-country in suppressing it. When I see such an union is impossible, I mean, without the grievous tyranny and oppression. People who have property in a country which they may lose, and privileges which they may endanger, are generally disposed to be quiet, even to bear much, rather than hazard all. While the government is mild and just, while important civil and religious rights are secure, such subjects will be dutiful and obedient. *The waves do not rise when winds blow.*

What such an administration as the duke of Alva's in the Netherlands might produce, I know not; but this I think I have a right to deem impossible. And yet there were two very manifest differences between that case, and ours; we are in our favour. The first, that Spain had already united the seventeen provinces under one visible government, though the states continued independent: the second, that the inhabitants of those provinces of a nation not only different from, but utterly unlike the Spaniards. Had the Netherlands been peopled from Spain, the worst of oppression had probably not provoked them to wish a separation of government. It might, and probably would, have ruined the country; but would never have produced an independent sovereignty. In fact, neither the very worst of governments, the worst of politics in the last century, nor the total abolition of their remaining liberty, the provinces of Spain itself, in the present, have produced any independency in Spain, could be supported. The same was observed of France.

And let it not be said, that neighbourhood of the seat of government has prevented a separation. Our strength at sea continues, the of Ohio (in point of easy and expeditious conveyance of troops) are nearer to London, than parts of France and Spain to their respective capitals; much nearer than Connaught and Ulster were in the days of queen Elizabeth. Nobody foretels the dissolution of the Russian monarchy from its extent; yet I will venture to say, the eastern parts of it are already much more inaccessible from Petersburg, than the country on the Mississippi is from London; I see, men, in less time, might be conveyed to the latter than

the distance. The rivers Oby, Jene-
Lena, do accurately the communi-
cation half so well by their course, nor are they
half so practicable as the American rivers. To
this I shall only add the observation of Ma-
chiaval, in his Prince; that a government sel-
dom long preserves its dominion over those
who are foreigners to it; who, on the other
hand, fall with great ease, and continue insep-
arably annexed to the government of their
own nation: which he proves by the fate of
the English conquests in France. Yet with
all these disadvantages, so is it to
an established government, that it
was not without the assistance of France and
England, that the United Provinces supported
themselves: which teaches

3. *The French remaining in Canada, an
encouragement to disaffections in the
Colonies.—If they prove a check, that check
of the most barbarous nature.*

*If the visionary danger of independence
in our colonies is to be feared; nothing is
more likely to render it substantial than the
neighbourhood of foreigners, at enmity with
the sovereign governments, capable of giv-
ing either aid,* or an asylum, as the event
shall require.* Yet against even these disad-
vantages, did Spain preserve almost ten pro-
vinces, merely through their want of union;
which indeed could never have taken place
among the others, but for causes, some of
which are in our case impossible, and it
is impious to suppose possible.

The Romans well understood that policy,
which teaches security arising to the
chief government from separate
the governed; when they restored the liber-
ties of states of Greece (oppressed but united
under Macedon) by an edict, that every state
should live under its own laws. They did
not even name a governor. Independence of
each other, and separate interests (though
among a people by
language, and I may say religion; inferior
neither in wisdom, bravery, nor their love of
liberty, to the Romans themselves;) was all
the security the sovereigns wished for their
sovereignty. It is true, they did not call them-
selves sovereigns; they set no value on the
title; they contented with possessing
the thing. it they did, even
without a standing army: (what is a
stronger proof of the security of their posses-
sion?) And yet by a policy, similar to
throughout, was the Roman world

held: a world composed of above an hun-
dred languages, and sets of manners, different
from their masters. Yet this domi-
nion was unshakable, till the loss of liberty
and corruption of in sovereign
state overturned it.

*But what is the prudent policy inculcated
by the remarker to obtain this end, security
of dominion over our colonies? It is, to
leave the French in Canada, a "check"
their growth; for otherwise, our people may
increase infinitely from all causes." We
have already seen what manner the French
and their Indians the growth of our
colonies. It is a modest word, this check. "It
murthering men, women, children! The
writer would, he could, hide from himself
as well as from the public, the horror arising
from such a proposal, by couching it in
general terms: it is no wonder he thought it a
"subject not fit for discussion" in his letter;
he recommends it as "a point that should
be the constant object of the minister's at-
tention!" But if Canada is restored on this
principle, will not Britain be guilty of all the
blood to be shed, all the murders to be com-
mitted, in order to check this dreaded growth
of our own people? Will not this be telling
the French in plain terms, that the horrid bar-
 they perpetrate with Indians on
colonists are agreeable to us; and that they
need not apprehend the resentment of a gov-
ernment, with whose views they so happily
concur? Will not the colonies view it in this
light? Will they have reason to consider
any longer as subjects and chil-
dren, when they find their enemies hal-
looed upon them by the country from whence
they sprung; the government that owes them
protection, as it requires their obedience? Is
not this the most likely means of driving them
into the arms of the French, who can invite
them by an offer of security, their own gov-
ernment chooses not to afford them? I would
not be thought to insinuate, the remarker
humanity. I know how many
good-natured persons are affected by the dis-
tresses of people at a distance, and whom
they do not know. There are even those,
who, being present, can sympathize sincerely
with the grief of a lady on the sudden death
of a favourite bird; and yet can read of the
sinking of a city in Syria with very little
If it be, after all, thought necessary to
check the growth of colonies, give me
leave to propose a method less cruel. It is a
of which we have an example in
Scripture. The murder of husbands, of wives,
of brothers, sisters, children, whose pleas-
ing society been for some time enjoyed,
affects deeply the respective surviving rela-
tions; but grief for the death of a child just
born is short, and easily supported. The
that I mean is that which dictated by*

*An idea was current during the war of independence,
that the revolt would not have taken place if the French
had been left possessed of Canada at the peace of 1763.
(On the other hand, those who since 1774 looked to fu-
ture independence considered the surrender by the
French as promoting it. Canada, during the war of
1812-15 was so heavy a weight on the United States
that in case of a future war it must be looked to.

the Egyptian policy, when the "infinite increase" of the children of Israel was apprehended as dangerous to the state.* Let an act of parliament then be made, enjoining the colony midwives to stifle in the birth every third or fourth child. By this means you may keep colonies to their present state. And if they choose the hard alternative of submitting to one or the other of these schemes, or checking their growth, I dare answer for them, they would prefer the first.

all this debate about propriety or impropriety of keeping or restoring Canada is possibly too early. We have taken the capital indeed, but the country is yet far from being in our possession; and perhaps there will be: for if our ministers are persuaded by such counsellors as the remarker, the French there are "not the worst of neighbours," and that if we conquered Canada, we ought, for our own sakes, to restore it, as a check to the growth of our colonies; I am then afraid we shall never take it. For there are many ways of avoiding the completion of the conquest, that will be less exceptionable and less odious than the giving it up.

7. *Canada easily peopled, without draining Great Britain of any of its inhabitants.*

The objection I have often heard, that if we had Canada we could not people it, without draining Britain of its inhabitants, is founded on ignorance of the nature of population in new countries. When we first began to colonize in America, it was necessary to send people, and to send seed-corn; but it is not now necessary that we should furnish, for a new colony, either one or the other. The annual increment alone of our present colonies, without diminishing their numbers, or requiring a man hence, is sufficient in ten years to fill Canada with double the number of English that it now has of French inhabitants. Those who are protestants among the French will probably choose to remain under the English government; many will choose to remove, if they can be allowed to sell their lands, improvements, and effects: the rest in that thin-settled country will in less than half a century, from the crowds of English settling round and among them, be blended and incorporated with our people both in language and manners.

8. *The merits of Guadeloupe Great Britain over-valued yet likely to be paid much dearer for, than Canada.*

In Guadeloupe the case is somewhat differ-

ent. It is not so easy to settle the people of the island: there are more and mightier than we; on, let us deal wisely with them, lest they multiply, and it come to pass, that when they shall join against us, and go forth against us, we shall be able to do nothing against them. — *Exodus*, chap. 17.

ent; and though I am far from thinking sugar-land enough, I think Guadeloupe is so desirable an increase of it, as other objects the enemy would probably infinitely more ready to part with. A country, fully inhabited by any nation, is proper possession for another of different languages, manners, religion. It is hardly tenable at less expense than it is worth. But the isle of Cayenne, and its appendix, *Equinoctial-France*, having but very few inhabitants, these therefore easily removed, indeed its acquisition every way suitable to our situation and desires. This would hold all that migrate from Barbadoes, the Leeward Islands, Jamaica. It would certainly recall into an English government (in which there would be room for millions) all who have before settled or purchased in Martinique, Guadeloupe, Cruz, or St John's; except such as know the value of an English government, and such I am sure are not worth recalling.

But should we keep Guadeloupe, we are told it would export 800,000*l.* in sugars. Admit this to be true, though perhaps the amazing increase of English consumption might stop most of it here, — to whose profit is this to redound? To the profit of the French of the island: except a small part, that should fall to the share of the English purchasers, but whose whole purchase money must first be paid to the wealth and circulation of France. I grant, however, much of this 800,000*l.* would be expended in British manufactures. Perhaps too, a few of the land-owners of Guadeloupe might dwell and spend their fortunes in Britain (though probably much fewer than of the inhabitants of North America.) I admit the advantages arising to us from these circumstances (as far as they go) in the case of Guadeloupe, as well as that of our other West India settlements. Yet even this consumption is little better than that of an allied nation would be, who should take our manufactures and supply us with sugar, and put us to no great expense in defending its place of growth. But though our own colonies expend almost the whole produce of Guadeloupe, we ought not to promise ourselves this will be the case of Guadeloupe! One 100,000*l.* will supply them with British manufactures; and supposing this can effectually prevent the introduction of those of France (which is morally impossible in a country used to them) other 200,000*l.* still spent in France, in the education of their children and support of themselves; or be kept up there, where they will always think their home is. be.

Besides this consumption of British manufactures, much said of the benefit we shall have from the situation of Guadeloupe; and we are told of a trade to Caracas and

Spanish Main In what respect Guadaloupe is better situated for this trade than Jamaica, ■■■ of our other islands, I am at a ■■■ to guess. I believe it to be ■■■ well situated for that of the windward coast, ■■ Tobago and ■■ Lucia, which in this as well ■ other respects, would be more valuable possessions, ■■ which, I doubt not, the peace will secure to ■■ Nor is ■■ nearly ■■ well situated for that of the rest of the Spanish Main ■■ Jamaica. As to the greater safety of our trade by the possession of Guadaloupe, experience has convinced us, that ■■ reducing a single island, or even more, ■■ stop the privateering business but little. Privateers still subsist, in equal if not greater numbers, and carry the vessels to Martinico, which before ■■ was more convenient to carry into Guadaloupe. Had ■■ all the Caribbees it is true, they would ■■ the parts be without shelter.

Yes, I do die who's, I suppose it to be a
 point and well worth consideration,
 whether our obtaining possession of all the
 islands would be more than a temporary
 benefit, as it would necessarily fill the
 French part of Hispaniola with French inha-
 bitants and thereby render it five times
 as valuable in time of peace, and little less
 so in time of war, and would prob-
 ably end in a few years in our having the
 benefit that great and fertile island under a
 French government. It is agreed on all
 sides that our conquest of St. Christopher, &
 driving the French from thence, first fur-
 nish all Spanish with slaves, and substantial
 provisions, and consequently the first co-
 lonies of its present owners. On the other
 hand it will hazard an opinion, that valuable
 as the French possessions in the West India
 are, and undeniable as the advantages they
 derive from them, there is something to be
 wished, that the opposite scale. They cannot
 at present make war with England, without
 exposing those advantages while divided
 among the numerous islands they now have,
 which if they were united, were they pos-
 sessed of St. Domingo only, their own share
 of war on a world, if well cultivated grow more
 useful than is now grown in all their West
 India islands.

I have before said, I do not deny the utility of the conquest, or even of future possession of Guadalupe. If not bought too dear The trade of the West India is one of our valuable trades. Our possessions there deserve great and attention. So do those of North America. I shall not enter invidious task of comparing their due estimation. It would be a very long, and a very disagreeable one, to run through every thing material on the head. It is enough to our present point, if I have shown, that the value of North America is capable of an increase by acquisition.

sure, ■■■ necessarily have an effect
the direct contrary of what ■■■ have been ■■■
destructively taught to fear, ■■■ that Guad-
loupe is, in point of advantage, but a very
small addition to ■■■ West-India posses-
sions. ■■■ render it ■■■ way less valuable to us, than
it ■■■ to the French, who will probably ex-
tract more value upon it, than upon ■■■ country [C
nada] that ■■■ much more valuable to ■■■ than

There is a great deal more to be said on the parts of these subjects, but it would carry too far in detail, that I fear would tire the patience of my readers, and which I do without apprehensions I have done already, I think. I am, what I am, till I dare venture on the indulgence of the public.

PLAIN TRUTH.

On various considerations the present
state of the city of Philadelphia, and pro-
vince of Pennsylvania By a Treatise
of Philadelphia

[illegible]

It is said, ■■■ were Italian; make this proverbial remark on our nation, viz. The English fear, but they do not see. That is: they are as one of inconvenience when they prevent, but do ■■■ take sufficient care to prevent them their natural courage makes them too little apprehensive of danger, so that they are often surprised by it, ■■■ ded of the proper means of security. When it is too late, they are sensible of their imprudence, after great loss, they provide buckets ■■■ engine after a pestilence, they think of keeping clean their streets and ■■■ and when a town has been sacked by their enemies they provide for its defence, &c. This kind of *after wisdom* is indeed so common with us, as to occasion the vulgar, though very significant saying, *When the sherd is broken, you shut the stable door*.

the _____ insensible _____ generally are of public danger, _____ indifferent when warned of it, so much the _____ freely, openly, and earnestly, ought such _____ apprehend it to speak their sentiments, that, if possible, those who seem to sleep _____ awakened, to think of

some means of avoiding or preventing the mischief, before it be too late.

Believing therefore, that it is my duty, I shall honestly speak my mind in the following paper.

War, at this time, rages over a great part of the known world; our newspapers are weekly with [redacted] of [redacted] destruction at every where occasions. Pennsylvania, indeed, situate in the centre of the colonies, [redacted] hitherto enjoyed profound repose; [redacted] though our nation is engaged in a bloody war, with two great and powerful kingdoms, yet, defended, in a great degree, from the French, on the one hand, by the northern provinces, and from the Spaniards, on the other, by the southern, [redacted] no small expense to each, our people have, till lately, slept securely in their habitations.

There is no British colony, excepting this, but has made some kind of provision for its defence; many of them have therefore never been attempted by an enemy; and others, that were attacked, have generally defended themselves with success. The length and difficulty of our bay and river have been thought so effectual a security to us, that hitherto no means have been entered into, that might discourage an attempt upon us, or prevent its succeeding.

But whatever security [redacted] might have been while [redacted] country and city were poor, [redacted] the advantage to be expected scarce worth the hazard of an attempt, it is now doubted, whether we can any longer safely depend upon it. Our wealth, of late years much increased, is one strong temptation, our defenceless state another, [redacted] induce [redacted] to attack us; while the acquaintance they have lately gained with our bay and river, by means of the prisoners and flags of truce they have had among us; by [redacted] which they almost every where maintain, [redacted] perhaps from traitors among ourselves; [redacted] facility of getting pilots to conduct them; and [redacted] known absence of ships of war, during the greatest part of the year, from both Virginia and New York, ever [redacted] war began, render the appearance of success to the [redacted] far more promising, and therefore highly increase our danger.

That our enemies may have spies abroad, and some even in these colonies, will not be made much doubt of, when it is considered, that such has been the practice of all nations in all ages, whenever they were engaged, or intended to engage, in [redacted] Of this we have an early example in the book of Judges (too pertinent to our case, and therefore I must beg [redacted] a little to enlarge upon it) where we are told, Chap. xviii. 2. That the children of Dan sent of their family five men from their coasts to spy out the land, and search it, saying, Go, search the land. These Dan-

ites it seems were at this time not very orthodox in their religion, and their spies met with a certain idolatrous priest of their own persuasion, ver. 3, and they said to him, Who brought thee hither? What makest thou in this place? And what hast thou here? [Would to God no such priests were to be found among us.] And they [redacted] unto him, [redacted] 5.—Ask counsel of God, [redacted] may know, whether our way which we go shall be prosperous: and the priest said unto them, Go in peace; before the Lord [redacted] your way wherein you go. [Are there [redacted] priests among [redacted] think you, that might, in the like case, give an enemy as good encouragement? It is [redacted] known, that we have numbers of the [redacted] religion with those, who of late encouraged the French to invade [redacted] mother-country.] And truly come, verse 7, to Laish, and [redacted] the people that were therein, how they [redacted] after the manner of the Zidonians, QUIET and [redacted] They thought themselves secure, [redacted] doubt; [redacted] as they never had been disturbed, vainly imagined they never should. [redacted] is not unlikely, that some might see the danger they were exposed to by living in that careless manner; but that, if these publicly expressed their apprehensions, this [redacted] reproached them as timorous persons, wanting courage or confidence in their gods, who (they might say) had hitherto protected them. But the spies, [redacted] 8, returned, and [redacted] to their countrymen, verse 9, Arise, that we may go against them; for we have seen the land, [redacted] behold it is very good! And are ye still? Be not slothful to go. Verse 10, when ye go, ye shall come to a people secure: [that is, a people that apprehend no danger, and therefore have made [redacted] provision against it; great [redacted] this!] and to a large land, and a place where there is no want of any thing. [redacted] could they desire more? Accordingly we find, in the following verses, [redacted] six hundred [redacted] only, appointed with weapons of war, undertook the conquest of this large land; knowing that 600 men, armed and disciplined, would be an over-match perhaps for 60,000, unarmed, undisciplined, and off their guard. And when they went against it, the idolatrous priest, verse 17, with his graven image, and his ephod, and his seraphim, and his molten image, [plenty of superstitious trinkets] joined with them, and, no doubt, gave them all the intelligence and assistance in his power: [redacted] heart, as the text assures us, being glad, perhaps for [redacted] more than [redacted] And now, what was the [redacted] of the poor Laish! The 600 men being arrived, found, as the spies had reported, a people [redacted] secure, [redacted] 20, 21. And they smote them with the edge of the sword, and burnt the city with fire; and there was no deliverance, because it was far from Zidon.—Not so far from Zidon, however, as

Pennsylvania from Britain; and yet we are, possible, more careless the people of Laish! As the Scriptures are given for our reproof, instruction, and warning, may we make a due use of this example, before it be too late!

And is our country, any more than our city, altogether free from danger? Perhaps not. We have, it is true, had a long peace with the Indians: but it is a long peace indeed, well as a long lane, that has no ending. The French know the power and importance of the Nations, their artifice, pains, or expense to gain them to their interest. By their priests they have converted many their religion, and these have openly espoused their cause. They appear irresolute what part to take; no persuasions, though forced with costly presents, having yet been able to engage them generally on one side, though numerous forces on their borders, ready to second and support them. What then is expected, these forces are, by orders from the crown, to be disbanded, when this expedition is laid aside, through (as it may appear to them) either of strength or courage; when they see that the French and their Indians, boldly, with impunity, savage the frontiers of New York, and scalp inhabitants; when those few Indians, that engaged with us against the French, are left exposed to their resentment: when they consider these things, is there no danger that, through disgust of our usage, joined with fear of the French power, greater confidence in their promises and protection than in ours, they may be wholly gained over by our enemies, and join in the against us? If such should be the case, which God forbid, how soon may the mischief spread to our frontier countries! And what may we expect as the consequence, but desertion of plantations, ruin, bloodshed, and confusion!

Perhaps some in this city, towns, and plantations near the river, may say themselves, "An Indian on the frontier will not affect us; the enemy will never come near our habitations; let those concerned take care of themselves." And others who live in the country, when they are told of the danger the city is in from attempts by may say, "What is that to us? The enemy will be satisfied with the plunder of the town, and never think it worth while to visit our plantations; let the town take care of itself." They are the suppositions, for I have heard some talk in this strange manner. But these the of true Pennsylvanians, of fellow-countrymen, or even of men, that have common sense or goodness? Is not the whole province one body, united by living the same laws, and enjoying the same privileges? Are the people of city and country connected in relations, by blood

and marriage, and in friendships equally dear? Are they not thus united in interest, and mutually useful and necessary to each other? If the feet are wounded, shall the head say, it is not me; I will not trouble myself to contrive relief! Or if the head is in danger, shall the feet say, we are not affected, and therefore will lend no assistance! No. For so would the body be easily destroyed: but when all parts join their endeavours for security, it is often preserved. And such should be the between the country the town; and such their mutual endeavours for the safety of the whole. When New England, a distant colony, involved itself in a grievous debt to reduce Cape Breton, we freely gave four thousand pounds for their relief. And another time, remembering that Great Britain, still distant, groaned under heavy taxes in supporting the war, we threw in our mite to their assistance, by a free gift of three thousand pounds: and shall country and town join in helping strangers (as those comparatively are) and yet refuse to assist each other?

But whatever different opinions have of our security in other respects, our trade, all seem to agree, is in danger of being ruined in another year. The great of our mies, in two different cruises last summer our bay, must give the greatest encouragement to repeat more frequently their visits, the profit being almost certain, and the risk next to nothing. Will not the first effect of this be, an enhancing of the price of foreign goods to the tradesman and farmer, who use them? For the rate of insurance will increase, in proportion to the hazard of importing them; and in the proportion will the price of those goods increase. If the price of the tradesman's work, the farmer's produce, would increase equally with the price of foreign commodities, the damage would not be great: but the direct contrary happens. For the same hazard of insurance, that raises the price of what is imported, must be deducted out of, and lower the price of what is exported. Without this addition and deduction, as long as the enemy cruize at our capes, and take our vessels that attempt to go out, as well as those that endeavour to come in, none can afford to trade, and business must be soon at a stand. And will the consequences be, a discouragement of many of the vessels that used to come from other places to purchase our produce, thereby a turning of the trade to ports can be entered with less danger, and capable of furnishing them with the same commodities, as New York, &c. lessening of business to every shopkeeper, together with multitudes of bad debts, the high of goods discouraging the buyers, and the low rates of their labour and produce render-

ing them to pay what they had bought; loss of employment to the tradesman, bad pay for what little he does; and lastly, of many inhabitants, who will retire to other provinces subject to the like inconveniences; whence lowering of the value of lands, lots, houses.

The enemy, doubt, have been told, the people of Pennsylvania quakers, against defence, from a principle of conscience; this, though true of a part, and that part only of the inhabitants, is commonly of the whole; and what may make it look probable to strangers is, that in fact, nothing is done by any part of the people towards their defence. But to refuse defending one's self, one's country, is unusual a thing among mankind, that possibly they may believe it, till by experience, they find they are higher and higher up our river, seize our vessels, and plunder plantations, villages, and retire with their booty unmolested. Will not this confirm the report, and give them the greatest encouragement to strike one bold stroke for the city, and for the whole plunder of the river?

It is said by some, that the expense of a vessel, to guard trade, would be very heavy, greater than perhaps the enemy can be supposed to take from at sea would be; and that would be cheaper for government to open an insurance office, and pay all losses. This is right reasoning? I think not; for what the enemy takes is clear loss to us, and gain to him; increasing his riches and strength, as much as it diminishes ours, making the difference double; whereas the money, paid our own tradesmen for building and fitting out a vessel of defence, in the country, and circulates among us; what is paid the officers that navigate her, is also spent ashore, and soon gets into other hands; the farmer receives the money for her provisions, and on the whole nothing is clearly lost to the country but wear and tear, as much as she will for at the end of less than her cost. This loss, and a trifling one it is all the inconvenience; but how many how great the and advantages! and should the enemy, through our supineness and neglect provide for the defence both of our trade and country, be encouraged to attempt this city, after plundering of goods, either burn it, or put it to ransom, how great would that loss be! he confusion, terror, and distress, so many families would be involved in!

The thought of this latter circumstance so much affects me, that I cannot forbear expatiating somewhat more upon it. You have, my countrymen, fellow-citizens,

riches to tempt a considerable force to unite and attack you, but are under no ties or engagements, to unite for your defence. Hence, on the first alarm, terror will spread over all; no can with certainty depend another will stand by him, beyond doubt very many will seek safety by a speedy flight. Those, that are reputed rich, will flee through fear of torture, to them produce more than they are able. The man, that has a wife and children, will find them hanging on his neck, beseeching him with quit the city, and save life, to guide and protect them in that time of general desolation ruin. All will run into confusion, amidst cries and lamentations, and the hurry and disorder of departers, carrying away their effects. The few that remain will be unable to resist. Sacking the city will be the first, and burning it in probability, the of the enemy. This, I believe, will be the if you have timely notice. What must be your condition, if suddenly surprised, without previous alarm, perhaps in the night! Confined to your houses, you will have nothing to trust to but the enemy's mercy. Your best fortune will be, to fall under the power of commanders of king's ships, able to control the mariners; and not into the hands of *irregular privateers*. Who can, without the utmost horror, conceive the miseries of the latter! when your persons, fortunes, wives, and daughters, shall be subject to the wanton and unbridled rage, rapine, and lust, of negroes, mulattoes and others, the vilest and most abandoned of mankind.* A dreadful scene! which may represent as exaggerated. I think it my duty to you: judge for yourself.

It is true, with very little notice, the rich may shift for themselves. The of speedy flight are ready in their hands; and with some previous care to lodge money and effects in distant places, though they should lose much, yet enough may be left them, and to spare. We unhappily circumstanced indeed we, the middling people, the tradesmen, shopkeepers, and farmers of the province and city! We cannot all fly with our families; and if we could, how shall we subsist? No; we and they, and what little we have gained by hard labour and industry, must bear the brunt: the weight of contributions, extorted by enemy (as it is of taxes among ourselves) be surely borne by us. No can be avoided, as

* By accounts, a ragged crew of the Spanish privateer that plundered Mr. Luson's, and another plantation, a little below Newcastle, was composed of such as these. The *Armer* humanity of their officers may be judged of, by the they gave poor captain Brown, whom they took on Martin's ship as returning from their they bravely defended and vessel longer they expected, for which every generous enemy esteemed him. They after he submitted, barbarously and murder him, though on knees begging quarter

stand at present; for though we are numerous, we are quite defenceless, having neither forts, arms, union, nor discipline. And though we were true, that our trade might be protected at no great expense, and our country and our city easily defended, if proper measures were but taken; yet, who shall these measures? Who pay that expense? On whom may we fix our eyes with the least expectation, that they will do any thing for our security? Should we address that wealthy and powerful body of people, who have ever since the war governed elections, and tried almost every bait in assembly; should we urge them to consider, if not as friends, at least as legislators, that protection is as truly due from government to people, as obedience from people to the government; and that if, in account of their religious scruples, they themselves could do us act for our defence, yet they might retire, relinquish their power for us, quit the helm to freemen during the present pest, to hands, chosen by their own interest too, whose prudence and moderation, with regard to them, they might safely confide in; secure, from their own native strength, of resuming again their present station, whenever it shall please them: should we remind them, that the public money, raised from all, belongs to all; that since they have, for their own ease, and to secure themselves in the quiet enjoyment of their religious principles (and may they long enjoy them) expended such large sums to oppose petitions, and engage favourable representations of their conduct, if they themselves could by no means be free to appropriate any part of public money for our defence; yet it would be no more than justice, to spare us a reasonable sum for that purpose, which they might easily give to the king? we heretofore, leaving all the appropriation to others, who would faithfully apply it as we desired: should we tell them, that though the treasury be at present empty, it may soon be filled by the outstanding public debts collected, at least credit might be had for such a single vote of the assembly: that though they themselves may be resigned and easy under naked, defenceless state of the country, it is otherwise with a very great part of the people; with us, who have no confidence that God will protect those, that neglect us of rational means for their security; we have any reason to hope, that our losses, if we should suffer any, may be made by collections in our favour at home. We conjure them by all the ties of neighbourhood, friendship, justice, and humanity, to consider these things; and what distraction, misery, confusion, what distress, may possibly be the effect of their unreasonable predominancy and perseverance; yet all would be in

vain: for they have already been, by great numbers of people, petitioned in vain. Our late government years solicit, request, and even threaten them in vain. The council have since twice remonstrated to them in vain. Their religious prepossessions are unchangeable, their obstinacy invincible. Is there then the least hope remaining, that from that quarter any thing should arise for our security?

And is our prospect better, if we turn our eyes to the strength of the opposite party, those great and rich men, merchants, and others, who are railing at quakers for doing what their principles require, what in charity we ought to believe they do their duty, but take no heed to the public safety. They have no wealth, influence, if they would use it, that they might easily, by their endeavours, example, raise a military spirit among us, make us fond, studious of, and expert in, martial discipline, and effect every thing that is necessary, under God, for our protection. But every one have taken possession of their hearts, and to have eaten out and destroyed every generous, noble, public spirit-sentiment. Rage, at the disappointment of their little schemes for power, gnaws their souls, and drives them with such cordial hatred to their opponents that every proposal, by the execution of which their may receive benefit as well as themselves, is rejected with indignation. "What," say they, "shall we lay out our money to protect the trade of quakers? we fight to defend quakers! No: let the trade perish, and the city burn; let what will happen, we shall lift a finger to prevent it." Yet the quakers have conscience to plead for their resolution not to fight, which these gentlemen have not. Conscience with you, gentlemen, is on the other side of the question: conscience enjoins it as a duty on you (and indeed I think it such on every man) to defend your country, your friends, your aged parents, your wives, and helpless children: and yet you resolve not to perform this duty, but contrary to your consciences, because the quakers are according to theirs. Till of late, I could scarce believe the story of him, who refused to pump in a sinking ship, because on board, whom he hated, would be saved by it as well as himself. Such, it seems, is the unhappiness of human nature, of passions, when violent, often too the united force of reason, duty, and religion.

Thus unfortunately are we circumstanced at this time, my dear countrymen and fellow-citizens; we, I mean, the middling people: the farmers, shopkeepers, and of the city country. Through the dissensions of our leaders, through mistaken principles of religion, joined with a love of worldly

power, on the one hand, through pride, envy, and implacable resentment on the other, our lives, our families, and little fortunes, dear to us as great man's — — — — — hum, are to — — — — — continually exposed to destruction, from an enterprising, cruel, now well-informed, and by — — — — — enemy. — — — — — as if Heaven, justly displeased at our growing wickedness, and determined to punish* — — — — — once-favoured land, had suffered our chiefs — — — — — engage in these foolish and mischievous contentions, for little posts and petty distinctions, that our hands might be bound up, — — — — — understandings darkened and ruffled, — — — — — every — — — — — of our security neglected. It — — — — — if our greatest men, our *vires nobilissimæ*† of both parties, had sworn the — — — — — of the country, and invited the French, — — — — — most inveterate enemy, — — — — — destroy it. Where then shall we seek for — — — — — and protection? The government — — — — — are immediately under denies it to us, and if the enemy comes, we are far from Zidon, and there is no deliverer near. Our case is dangerously bad, but perhaps there is yet a remedy, if — — — — — have but the prudence and the spirit to apply it.

If this new flourishing city, and greatly improving colony is destroyed and ruined, — — — — — will not be for want of numbers of inhabitants — — — — — to bear — — — — — in its defence. It is computed, that we have at least (exclusive of the quakers) sixty thousand fighting men, acquainted with fire arms, many of them hunters and marksmen, hardy and bold. All we want is order, discipline, and a few cannon. At present we are like the separate filaments of flax before the thread is formed, without strength, because without connexion; but union would make — — — — — strong, and even formidable, though the *great* should — — — — — help — — — — — join us, though they should even oppose our uniting, from some mean views of their own, yet, if we resolve upon it, and it please God to inspire — — — — — with the necessary prudence and vigour, it may be effected. Great numbers

third and fourth descent, that real for the public good, that military prowess, and — — — — — undaunted spirit, which has in every age distinguished their nation. What numbers have we likewise of — — — — — brave people, whose fathers in the last age made so glorious — — — — — stand for our religion and liberties, when invaded by a powerful French army, joined by Irish Catholics, under a bigoted popish king? Let the memorable siege of Londonderry, and the signal action of the Inishkinneena, by which the heart of that prince's schemes was broken, be perpetual testimonies of the courage — — — — — conduct of those noble warriors! Nor are there wanting amongst — — — — — thousands of *tho' warlike* nation, whose sons have ever since the — — — — — of Caesar maintained the character, he gave their fathers, of joining the most *estimate* courage to all the other military virtues: — — — — — the brave and steady German. Numbers of whom have actually born arms in the service of their respective princes, and if they fought well for their tyrants and oppressors, would they refuse to unite with — — — — — in defence of their newly acquired — — — — — precious liberty and property? Were the union formed, were we — — — — — united, thoroughly armed and disciplined, was every thing in our power done for our security, as far as — — — — — man means and foresight could provide, might then, with more propriety, number and the assistance of Heaven, and a blessing lawful endeavour. The very sense of our strength and readiness would be an insupportable discouraging our enemies, first is a wise and true saying, that *one sword often keeps another in the scabbard*. The way to secure peace is to be prepared for war. They, who are on their guard, and appear ready to receive their adversaries, are in much less danger of being attacked, than the supine, secure, and negligent. We have yet a winter before us, which may afford a good and almost sufficient opportunity for this, if we seize and improve it with a becoming vigour. And if the hints contained in this paper ar-

intemperity, when reasoned — — — — — a foreign clime, yet with the people it is not so; our neighbourhood of New England afford the world a convincing proof, that Britons, though a hundred years transplanted, and — — — — — remotest part of the earth, may yet retain, even to the

* — — — — — determined to punish — — — — — chosen people the inhabitants of Jerusalem who thought breakers of his other laws were culpable offenders of that one, which required keeping holy the Sabbath day. He suffered even the strict observation of that command to — — — — — for Pompey observing that they then obstinately refused to fight, made a general assault on that day, took the town, and butchered them with a little mercy as — — — — —

† Conjurare cives nobilissimos — — — — — incendere, Gallorum contra infensissimos homines Romam ad bellum arcescent — CAT in Sallust

lay them a form of — — — — — for the purposes herein mentioned, together with a practicable scheme for raising the — — — — — necessary for the defence of — — — — — trade, city, and try, without laying a burden on any — — — — —.

May the God of wisdom, strength, and power, the Lord of the armies of Israel, inspire us with prudence in this time of danger, take away from us all the seeds of contention and division, and unite the hearts and commands of all of us, of whatever sect or nation, in one bond of peace, brotherly love, — — — — — generous public spirit; may he give — — — — — strength and resolution — — — — — amend our lives, and remove from among us every thing that

is displeasing to him; afford ——— gracious protection, confound the designs of ——— enemies, and give peace in ——— our borders, ——— sincere prayer of

A comparison of the conduct of the Ancient Jews, ——— of the Anti-federalists in the United States of America.

A ——— advocate for the proposed federal constitution in a public assembly said, that "the repugnance of a great part of mankind to good government ——— such, that he believed, that if an angel ——— heaven was to bring down a constitution, formed there for our use, it would nevertheless meet with violent opposition." He was reproved for the supposed extravagance of the sentiment, and he did not justify it. Probably it might not have immediately occurred to him, that the experiment had been tried, and that the event was recorded ——— the ——— faithful of all histories, the Holy Bible; otherwise he might, ——— it seems to me, have supported his opinion by that unexceptionable authority.

The Supreme Being had been pleased to nourish up a single family, by continued ——— of his attentive providence, till it became a great people: and having rescued them from bondage by many miracles, performed by his servant Moses, he personally delivered to that chosen servant, in presence of the whole nation, a constitution and code of laws for their observance, accompanied and sanctioned with promises of great rewards, and threats of severe punishments, as the consequence of their obedience or disobedience.

This constitution, though the Deity himself was to be at its head (and it is therefore called by political writers a theocracy) could not be carried into execution but by the ——— of his ministers; Aaron and his sons ——— then were commissioned ——— he, with Moses, the first established ministry of the ——— government.

One would have thought, that the appointment of men, who had distinguished themselves ——— procuring the liberty of their nation, and had hazarded their lives in openly opposing the will of a powerful monarch, who would have retained that nation in slavery, might have been an appointment acceptable to a grateful people; and that a constitution, framed for them by the Deity himself, might on that account have been secure of an universal welcome reception. Yet there were, in every one of the thirteen tribes, some discontented, ——— spirits, who were continually exciting them to reject the proposed new government, and this ——— various motives.

Many still retained an affection for Egypt, the land of their nativity, and these, when ——— they felt ——— inconvenience ——— hardship,

though the natural and unavoidable effect of their change of situation, exclaimed against their leaders as ——— authors of their trouble, and were ——— only for returning ——— Egypt, but stooping their deliverers.* Those inclined to idolatry were displeased that their golden calf was destroyed. Many of the chiefs thought the new constitution might ——— injurious ——— their particular interests, that the profitable places would be engrossed by the families and friends of Moses and Aaron, and others, equally well born, excluded.†—In Josephus, and the Talmud, we learn some particulars, ——— fully narrated in the Scripture. We are there told, "that Corah was ambitious of the priesthood, and offended that it was conferred ——— Aaron; and this, as he said by the authority of Moses only, without the consent of the people. He accused Moses as having, by various artifices, fraudulently obtained the government, and deprived ——— people of their liberties, and of conspiring with Aaron to perpetuate the tyranny in their family. Thus, though Corah's real motive was the supplanting of Aaron, he persuaded the people, that he meant only the public good; and they, moved by his insinuations, began to cry out, "Let us maintain the ——— liberty of our respective tribes, we have freed ourselves from all the plagues imposed upon us by the Egyptians, and shall we suffer ourselves to be made slaves by Moses? ——— we ——— have ——— were better ——— return to Pharaoh, who at least fed us with bread and onions, than to serve this new tyrant, who, by his operations, has brought us into danger of famine." Then they called in question the reality of his conference with God, and objected to the privacy of the meetings; and the preventing any of the people from being present at the colloquies. ——— approaching the place, on grounds of great suspicion. They accused Moses also of peculation, as embezzling part of the golden spoons and the silver chargers, that the priests had offered at the dedication of the altar; and the offerings of gold by the common people; as well as most of the poll tax;‡ and Aaron they accused of pocketing much of the gold of which he pretended to have made a molten calf. Besides peculation, they charged Moses with ambition; to gratify which passion, he had, they said, deceived the people, by promising to bring them to a land flowing with milk and honey; instead of doing which, he had brought ——— from such a land; and that he thought

* Numbers, chap. xiv.

† Numbers, chap. xvi. ver. 3. And they gathered themselves together against Moses and against Aaron and said unto them, ye make too much upon you, seeing all the congregations are holy, every one of them: wherefore then lift ye up yourselves ——— congregation?"

‡ Numbers, chap. vii.

Exodus, chap. xxv. ver. 32.

Numbers, chap. iii. and Exodus chap. xiv.

light of all this mischief, provided he could make himself an *absolute prince*.⁴ That, to support the dignity with splendour in his family, a partial poll tax, already levied and given Aaron, was followed by a general one, which would probably be augmented from time to time, if he were allowed to go on promulgating new laws, on pretence of new occasional revelations of the divine will, till their whole fortunes devoured by that aristocracy.

Moses denied the charge of peculation, and his were destitute of proofs to support it; though facts, if real, are in their nature capable of proof. "I have not," he (with holy confidence in the presence of God,) "I have not taken from this people the value of *one mite*; nor done them any other injury." But his enemies had made the charge, and with *some* among the populace; for no kind of accusation is so readily made, or easily believed, by knaves, as the *accusation* of knavery.

In fine, no less than two hundred and fifty of the principal men "famous in the congregation, of renown," heading and exciting the mob, worked them up to such a pitch of phrensy, that they called out, *him*, *him*, and thereby secure our liberties; and let us choose other captains, that may lead us back into Egypt. in *we* do not succeed in reducing the Canaanites.

On *the* whole, it appears, that the *people* were a people jealous of their newly acquired liberty, which jealousy *in* itself no fault; but that, when they suffered it to be worked upon by artful men, pretending public good, with nothing really in view but private interest, they were led to oppose the establishment of the constitution, whereby they brought upon themselves much inconvenience and misfortune. It farther appears, from *the* same inestimable history, *when*, *many* ages, the constitution *became* and much abused, and an amendment of it was proposed, the populace, *as* they had accused Moses of the ambition of making himself a prince, and cried out, stone him, stone him; so, exciting by their high-priests and scribes, they exclaimed against *Messiah*, that he aimed at becoming king of the Jews, *cried*, crucify him, crucify him. From all which *gather*, that popular opposition to a public measure is no proof of its impropriety, even though the opposition *extended* and headed by men of distinction.

To conclude, I beg I may not be under-

stood to infer, that *the* general convention *was* divinely inspired, when it formed the new federal constitution, merely because that constitution has been unreasonably and vehemently opposed; yet, I must own, I have so much *in* the general government of the world by Providence, that I *hardly* conceive a transaction of *momentous* importance to *the* welfare of millions now existing, and to exist in the posterity of a great nation, *should* *suffer* to pass without being *in* *degree* influenced, guided, and governed by that omnipotent, omnipresent, and beneficent ruler, in whom all inferior spirits live. *move*, *have* their being.

THE INTERNAL STATE OF AMERICA;

Being a true description of the Interest and Policy of that Continent.

THUS *is* a tradition, that, in the planting of New England, the first settlers met *many* difficulties and hardships; as is generally the *case* when a civilized people attempt establishing themselves in a wilderness country. Being piously disposed, they sought relief from Heaven, by laying their wants and distresses before the Lord, in frequent set days of fasting and prayer. Constant meditation *and* discourse *on* subjects kept their minds gloomy *and* discontented; and, like the children of Israel, there were many disposed to return *to* that Egypt, which persecution had induced them to abandon. At length, when it *was* proposed in the assembly to proclaim another fast, a farmer of plain sense rose and remarked, that the inconveniences they suffered, and concerning which they had so *often* wearied Heaven with their complaints, were not so great as they might have expected, and *was* diminishing every day as the colony strengthened; that the earth began to reward their labour, and to furnish liberally for their subsistence; that the seas and rivers were found full of fish, the air sweet, the climate healthy; and, above all, that they were there in the full enjoyment of liberty, civil and religious: he therefore thought, that reflecting *on* conversing on these subjects would be more comfortable, as tending *to* make them contented with their situation; *that* it would be more becoming the gratitude they owed to the Divine Being, if, instead of a fast, they should proclaim a thanksgiving. His advice was taken; and from that day to this they have, in every year, observed circumstances of public *city* sufficient to furnish employment for a thanksgiving day; which *is* there constantly ordered and religiously observed.

* Numbers, chap. xvi. ver. ix. "Is it a small thing that thou hast brought us out of a land flowing with milk and honey, to kill us in this wilderness, except thou *thine*self altogether a *people* over us?"

† Numbers, chap. ii.

‡ Exodus, chap. xxx.

§ Numbers, chap. xvi.

I see in public newspapers of different frequent complaints of *hard times, dearth of trade, scarcity of money, &c.* is not my intention to assert or maintain, that these complaints are entirely without foundation. There be no country or nation existing, which there will be some people circumstanced, to find it hard to gain a livelihood; people who not in the way of any profitable trade, and with whom money is scarce, because they have nothing to give in exchange for it; and it is always in the power of a small number to make a great clamour. But let us take a cool view of the general state of our affairs, and perhaps the prospect will appear less gloomy than has been imagined.

The great business of the continent is agriculture. For one artisan, merchant, I suppose, we have at least one hundred farmers, by far the greatest part cultivators of their fertile lands, from whence many of them draw not only the food necessary for their subsistence, but the materials of their clothing, to need very few foreign supplies; while they have a surplus of productions to dispose of, whereby wealth is gradually accumulated. Such has been the goodness of Divine Providence to these regions, and so favourable the climate, that, since the three or four years of hardship in the first settlement of our fathers here, a famine or scarcity has never been heard of amongst us; on the contrary, though years may have been more, and others less plentiful, there has always been provision enough for ourselves, and a quantity to spare for exportation. And although the crops of year were generally good, never the farmer better paid for the part he can spare commerce, the published price currents abundantly testify. The lands he possesses are continually rising in value with the increase of population; and the whole, is enabled to give such good wages to those who work for him, that who are acquainted with the old world must agree, that in no part of it are the labouring poor generally well fed, well clothed, well lodged, and well paid, as in the United States of America.

If we enter the cities, we find, that, since the revolution, owners of houses and of ground have had their interest vastly augmented in value; have risen to an astonishing height, thence encouragement increase building, which gives employment abundance of workmen, does also the increased luxury and splendour of living of inhabitants, thus made richer. These workmen demand and obtain much higher wages than any other part of the world would afford them, and are paid in ready money.—This class of people therefore do not, or ought not, to complain of hard times; and they

make a very considerable part of the city population.

At the distance I live from our American fisheries, I cannot speak of them with any degree of certainty; but I have not heard, that the labour of the valuable race of men employed in them is paid, or that they, with less success, than before the revolution. The whale-men indeed have been deprived of one market for their oil; but another, I hear, is opening for them, which it is hoped may be equally advantageous; and the demand is constantly increasing for their spermaceti candles, which therefore bear a much higher price than formerly.

There remain the merchants and shopkeepers. Of these, though they make but a small part of the whole nation, the number is considerable, too great indeed for the business they are employed in: for the consumption of goods in every country has its limits. The faculties of the people, that is, their ability to buy and pay, being equal only to a certain quantity of merchandise. If merchants calculate amiss on this proportion, and import too much, they will of course find the sale dull for the surplus, and of them will say, that trade languishes. They should, doubtless will grow, wiser by experience, and import less. If too many artificers, town, and farmers from the country, flatter themselves with the idea of leading easier lives, shopkeepers, the whole natural quantity of that business divided among them all may be too small a share for each, and occasion complaints, that trade is dead; these may also suppose, that it is owing to scarcity of money, while, in fact, it is not much from the fewness of buyers, or from the excessive number of sellers, that the mischief arises; and, if every shopkeeping farmer and mechanic would reduce to the use of his plough and working tools, there would remain of widows and other women, shopkeepers sufficient for the business, which might then afford them a comfortable maintenance.

Whoever has travelled through the parts of Europe, and observed how small is the proportion of people in affluence or easy circumstances there, compared with those in poverty and misery; the few rich and haughty landlords, the multitude of poor, abject, rack-rented, tythe-paying tenants, and half-fed and half-starved ragged labourers; and view here the happy mediocrity, that so generally prevails throughout these states, where the cultivator works for himself, and supports his family in decent plenty, will, methinks, see abundant reason to bless Divine Providence for the evident and great difference in our favour, and be convinced, that no country known to us enjoys a greater share of felicity.

It is true, that many of the there

are parties and discords; but let us look back, and ask if we were ever without them? Liberty will exist wherever there is liberty; perhaps they help preserve it. By the collision of different sentiments, sparks of truth are struck out, and political light is obtained. The different factions, which at present divide us, aim all at the public good: the differences only about the various modes of promoting it. Things, actions, measures, and objects of all kinds, present themselves to the minds of men in such a variety of lights, that it is possible we should all think alike at the same time on every subject, when hardly the same man retains at all the same ideas of it. Parties are therefore the common lot of humanity; and by more mischievous or less beneficial than those of other countries, nations, and ages, enjoying in the same degree the great blessing of political liberty.

Some indeed among us are not much grieved for the present state of our affairs, or apprehensive for the future. The growth of luxury alarms them, and they think we are from that alone in the high road to ruin. They observe, that our revenue is sufficient without economy, and that the plentiful income of the whole people from the natural productions of their country may be dissipated in vain and needless expences, and poverty be introduced in the place of affluence. This may be possible. It rarely happens: there seems to be in every nation a greater proportion of industry and frugality, which tend to enrich, than of idleness and prodigality, which tends to poverty; so that upon the whole there is a continual accumulation. What Spain, Gaul, Germany, and Britain were in the time of the Romans, inhabited by people little richer than our savages, and consider their wealth they now present possess, in numerous well-built cities, improved farms, rich moveables, magazines stock with valuable manufactures, nothing of plate, jewels, and coined money; and all this notwithstanding their bad, wasteful, plundering governments, and their mad destructive wars; and yet luxury and extravagant living has never suffered much restraint in those countries. Then consider the great proportion of industrious frugal farmers inhabiting the interior parts of these American states, and of whom the body of our nation consists, and judge whether it is possible, that the luxury of our sea-ports can be sufficient to ruin such a country.—If the importation of foreign luxuries could ruin a people, we should probably have been ruined long ago; for the British nation claimed a right, and practised it, of importing among us not only the superfluities of their production, but those of every nation under heaven; we bought and sold them, yet we flourished and grew

rich. At present our independent governments may do what we could not then do, discourage by heavy duties, or prevent by heavy prohibitions, such importations, and thereby grow richer; if, indeed, which may admit of dispute, the desire of adorning ourselves with fine clothes, possessing fine furniture, with elegant houses, &c. is not, by strongly inciting our industry, an occasion of producing a greater value, than we consumed in the gratification of our desires.

The agriculture and fisheries of the United States are the great sources of our increasing wealth. That puts a seed into the earth is recompensed, perhaps, by receiving forty out of it; and he who draws a fish out of our tor, draws up a piece of silver.

Let us (and there is no doubt but we shall) be attentive to these, and then the power of our rivals, with all their restraining prohibitory acts, cannot much hurt us. We are masters of the earth and, like Antrius, the fable, if, in wrestling with a Hercules, we now and then receive a fall, the touch of our parents will communicate to us fresh strength and vigour to resume the contest.

ON OHIO.

When Lord Sandwich presented over the British Board of Trade, 1769, a plan was suggested by Dr Franklin for establishing a colony or settlement on the river Ohio: considerations of policy and utility were considered in this design; among others that of serving as a protection to the interior frontier of the adjoining colonies against the Indians, which was highly approved by the Board of Trade. It had not been practised in at that period, but in 1770 it was renewed, and Thomas Walpole, an eminent banker of London, was associated with Dr. Franklin, John Sargent, and Samuel Wharton, others of great property in the design. A petition praying a tract of land on the Ohio for this purpose, was presented to the King in council by the above-named persons, on behalf of themselves and others. The petition had been for some time before the privy council, it was referred, as to the Board of Trade, to consider and report. The report appears to have been drawn up by Lord Hillsborough, who then presided in the Board. The answer was written by Dr. Franklin, papers existed great at that period and it is believed Lord Hillsborough forgot Dr. Franklin the presentation, it felt the answer.

Report of the Lord Commissioners for Trade and Plantations, on the Petition of the Honourable Thomas Walpole and his Associates, for a Grant of Lands on the river Ohio, in North America.

My Lords,—Pursuant to your lordships order of the 25th May, 1770, we have taken into our consideration the memorial of the honourable Thomas Walpole, Benjamin Franklin, John Sargent, and Samuel Wharton, esquires, in behalf of themselves and their associates, setting among other things, "That they presented a petition to his majesty in council, for a grant of lands in America (part of the lands purchased by government of the Indians) in consideration of a

price to be paid in purchase of the same; that in pursuance of a suggestion which arose when the said petition was under consideration of the lords commissioners for trade and plantations, the memorialists presented a petition to the lords commissioners of the treasury, proposing to purchase a larger tract of land on the river Ohio in America, sufficient for a separate government; whereupon their lordships were pleased to acquaint the memorialists, they had no objection to accepting the proposals made by them, in respect to the purchase-money, quit-rent to be paid for the said tract of land, if it should be thought advisable by those departments of government, to whom it belonged to judge of the propriety of the grant, both in point of policy and justice, that the grant should be made; in consequence whereof the memorialists humbly renew their application, that a grant of said lands may be made to them, reserving therein to all persons their just and legal rights to any parts or parcels of said lands which may be comprehended within the tract prayed for by the memorialists; whereupon they beg leave to report to your lordships,

I. That according to the description of the tract of land prayed for by the memorialists, which description annexed to their memorial, it appears to us to contain part of the dominion of Virginia, to the south of the river Ohio, and to extend several degrees of longitude westward from the western ridge of the Appalachian mountains, as will more fully appear to your lordships from the sketch of the tract, which we have since caused to be delineated with as much exactness as possible, and herewith submit to your lordships, to the effect that your lordships may judge, with the greater precision, of the situation of the lands prayed for in the memorial.

II. From this sketch your lordships will observe, that a very considerable part of the lands prayed for lies beyond the line, which has, in consequence of his majesty's orders for that purpose, been fixed by treaty, as well with the tribes of the Six Nations and their confederates, as with the Cherokee Indians, as the boundary line between his majesty's territories and the hunting grounds; and as the faith of the treaty is pledged in the most solemn manner both to the Six Nations and the Cherokees, notwithstanding the former of these nations had ceded the property in the lands to his majesty, yet no settlement shall be made beyond that line, it is our duty to report to your lordships our opinion, that it would on that account be highly improper to comply with the request of the memorial, so far as it includes any lands beyond the said line.

It remains therefore, that we report to your lordships our opinion, how far it may consist

with good policy and justice that his majesty should comply with that part of the memorial which relates to those lands, which are situated to the east of that line, and that part of the dominion of Virginia.

III. And first with regard to the policy, we leave to remind your lordships of that principle which was adopted by this board, and approved and confirmed by his majesty, immediately after the treaty of Paris, viz. the confining the western extent of settlements, to such a distance from the sea-coast, that those settlements should lie within the reach of the trade and commerce of this kingdom, upon which the strength and riches of it depend, and also of the necessity of that authority and jurisdiction, which was conceived to be necessary for the preservation of the colonies, in due subordination to, and dependence upon, the mother-country; these we apprehend to have been two capital objects of his majesty's proclamation of the 7th of October, 1763, by which his majesty declares it to be his royal will and pleasure, to reserve under his sovereignty, protection, and dominion, for the use of the Indians, all the lands not included within the three governments, the limits of which are described therein, also all the lands and territories lying westward of the rivers of the which fall into the sea from the west and north-west, and by which, all persons are forbid to make any purchases or settlements whatever, or to take possession of any of the lands above reserved, without special license for that purpose.

IV. It is true indeed, that partly from want of precision in describing the line intended to be marked out by the proclamation of 1763, and partly from a consideration of justice in regard to legal titles to lands, which had been granted beyond that line, it has been since thought proper to enter into engagements with the Indians, fixing a more precise determined boundary between his majesty's territories and their hunting grounds.

V. By this boundary, so far as regards the line in question, your lordships will observe, that the hunting grounds of the Indians are reduced within narrower limits than were specified by the proclamation of 1763; we beg leave, however, to submit to your lordships, that the same principles of policy, in reference to settlements at so great a distance from the seacoast as to be out of the reach of all advantageous intercourse with this kingdom, continue to exist in their full force and spirit, and though various propositions for erecting new colonies in the interior parts of America have been, in consequence of this determination of the boundary line, submitted to the consideration of government (particularly in that part of the country wherein are situated the lands prayed for, with a view

to that object) yet the dangers and disadvantages of complying with such proposals have been so obvious, ■■■ every attempt made for carrying them into execution.

"VI. Many objections, besides those which ■■■ have already stated, ■■■ to ■■■ propositions of this kind; but as every argument on this subject is collected together with great force and precision, in a representation made to his majesty by the commissioners for trade ■■■ plantations in March, 1763, we beg leave to ■■■ them ■■■ your lordships ■■■ their words.

In that representation they deliver their opinion upon ■■■ proposition ■■■ settling new colonies in the interior country as follows, viz.

"The proposition of forming inland colonies in America, is, ■■■ humbly conceive, entirely new: it adopts principles in respect ■■■ American settlements different from ■■■ has hitherto been the policy of this kingdom, and leads to a system which if pursued through all its consequences, is, in the present state of that country, of the greatest importance.

"The great object of colonising upon the continent of North America, has been to improve and extend the commerce, navigation, and manufactures of this kingdom, ■■■ which its strength and security depend.

"1. By promoting the advantages ■■■ rily carried on upon the northern ■■■

"2. By encouraging ■■■ growth and culture of naval stores, and of raw materials, to be transported hither in exchange for perfect manufactures and other merchandise.

"3. By securing a supply of lumber, provisions, and other necessities, for the support of our establishments in the American islands.

"In order to answer these salutary purposes it has been the policy of this kingdom to confine her settlements ■■■ much as possible to the sea-coast, and not to extend them to places inaccessible to shipping, and consequently more out of ■■■ reach of commerce; ■■■ plan, which, ■■■ same time ■■■ it secured the attainment of these commercial objects, ■■■ the further political advantage of guarding against all interfering of foreign powers, and of enabling this kingdom to keep up a superior naval force in those ■■■, by the actual possession of such rivers and harbours as were proper stations for ■■■ in time of ■■■

"Such, may it please your majesty, have been the considerations inducing that plan of policy hitherto pursued in the settlement of your majesty's American colonies, with which the private interest and sagacity of the ■■■ tlers co-operated from the first establishments formed upon that continent: it was upon ■■■ principles, and ■■■ these views, that government undertook the settling of Nova Scotia in 1749; ■■■ it was from a view of

the advantages represented to arise from it in these ■■■ articles, that it was so liberally supported by the ■■■ of parliament.

"The same motives, though operating in a ■■■ degree, and applying ■■■ fewer objects, did, as we humbly conceive, induce the forming the colonies of Georgia, East Florida, and West Florida, ■■■ the south, ■■■ the making those provincial arrangements in the proclamation of 1763, by which the interior country ■■■ left ■■■ possession of the Indians.

"Having thus briefly ■■■ what has been the policy of this kingdom in respect to colonizing in America, ■■■ may ■■■ necessary ■■■ a cursory view of what ■■■ been the effect of it in those colonies, where there has been sufficient time for that effect ■■■ discover itself; because, if it ■■■ appear from the present state of ■■■ settlements, and the progress they have made, that they ■■■ likely to produce the advantages above stated, it will, we humbly apprehend, be a very strong argument against forming settlements in the interior country; ■■■ especially, when every advantage, derived from an established government, would naturally tend to draw the ■■■ of population; fertility of soil and temperature of climate offering superior incitements to settlers, who, exposed to few hardships, and struggling with few difficulties, could, with little labour, ■■■ abundance for their ■■■ wants, but without ■■■ possibility of supplying ours with any considerable quantities. Nor would these inducements be ■■■ in their operation to foreign emigrants, determining their choice where to settle, but would act ■■■ powerfully upon the inhabitants of the northern and southern latitudes of your majesty's American dominions; who, ever suffering under ■■■ opposite extremes of heat and cold, would ■■■ equally tempted by ■■■ moderate climate ■■■ abandon latitudes peculiarly adapted ■■■ the production of those things, which ■■■ by nature denied to us; and for the whole of which we should, without their assistance, stand indebted to, and dependant upon other countries.

"It is well known, ■■■ antecedent to the year 1749, all that part of the ■■■ of the British empire in America, which extended north-east from ■■■ province of ■■■ to Canada in Nova Scotia, and from thence north to the mouth of St. Lawrence river, lay ■■■ neglected; though ■■■ naturally affording, or capable by ■■■ of producing, every species of naval stores; the seas bounding with whale, cod, and other valuable fish, and having many great rivers, bays, and harbours, fit for the reception of ships of war. Thus circumstanced, a consideration of the great commercial advantages which would follow from securing ■■■ possession of this country, combined with ■■■ evidence of the value ■■■ upon ■■■ by ■■■ mies, who, during the war which terminated

or of New York, in his history of the Five Nations, observes, that about the year 1664, 'the Five Nations being amply supplied by the English with fire-arms and ammunition, gave a full swing to their ■■■■like genius. They carried their arms ■■■■ far south as Carolina, to the northward of New England, and ■■■■ far ■■■■ as the river Mississippi, over a vast country, which extended twelve hundred miles in length from north to south, and about six hundred miles in breadth,—where they entirely destroyed whole nations, of whom there are no ■■■■ remaining among the English."

In 1701, the Five Nations put all their hunting lands under the protection of the English, as appears by the records, and by the recital and confirmation thereof, in their deed to the king of the 4th September, 1730;—and governor Pownall, who many years ago diligently searched into the rights of the natives, and in particular into those of the northern confederacy, says, in his book intitled, *the Administration of the Colonies*, "The right of the Five Nation confederacy to the hunting lands of Ohio, Tichockachronlute and Scaueridiada, by the conquest they made, in subduing the *Nshaturons*, *Delawares* (as we call them,) *Twictwees*, and *Oilmoin*, may ■■■■ fairly proved, as they stood possessed thereof at the peace of Rswick, 1697."—And ■■■■ firmatory hereof, Mr. Lewis Evans, a gentleman of great American knowledge, in his map of the middle colonies, published in America, in the year 1755, has laid down the country on the south-easterly side of the river Ohio, as the hunting lands of the Six Nations; and in his analysis to this map, he expressly says,—"*The Nshawanen*, who were formerly one of the most considerable nations of those parts of America, whose seat extended from Kentucky south-westward to the Mississippi, have been subdued by the ■■■■federates (or Six Nations) and the country since became their property. No nation," Mr. Evans adds, "held out with greater ■■■■ lution and bravery, and although they have been scattered in all parts for ■■■■ while, they are again collected on Ohio, under the dominion of the confederates."

At a congress held in the year 1744, by the provinces of Pennsylvania, Maryland, and Virginia, with the Six Nations,—the commissioners of Virginia, in a speech to the chiefs and warriors of that confederacy, say, "tell ■■■■ what nations of Indians you conquered any ■■■■ from in Virginia, how long it is since, and what possession you have had; and if it does appear that there is any land on the borders of Virginia that the Six Nations have a right to, we are willing to make you satisfaction."

To this speech, ■■■■ Six Nations gave the following animated ■■■■ decisive answer:—

"All the world knows we conquered the ■■■■veral nations living on Susquehanna, Cohogoronto [i. e. Powtomack] and on the back of the great mountains in Virginia;—the Conoy-ack-suck-roona, Cocknow-was-roonan, Tobow-irough-roonan, and Connutekmough-roonaw feel the effects of our conquests; being now a part of our nations, and their lands at our disposal. We know very well, it ■■■■ often been ■■■■ by the Virginians, ■■■■ the king of England and the people of that colony conquered the people who lived there; but it ■■■■ not ■■■■ We will allow, they ■■■■ quered the Sachdaguguronaw, and drove back the Tuskaroras (the ■■■■ near the branches of James's river in Virginia, and the latter on these branches) and that they have, on that account, a right to some parts of Virginia; but as to what lies beyond the mountains, we conquered the nations residing there, and that land, if the Virginians ever got a good right to it, it must be by us."

In the year 1750, the French seized four English traders, who were trading with the Six Nations, Shawanese, and Delawares, ■■■■ the waters of the Ohio, and sent them prisoners to Quebec, and from thence to France.

In 1754, the French took a formal possession of the river Ohio, and built forts at Venango,—at the confluence of the Ohio and Monongahela, and at the mouth of the Cherokee river.

In 1755, general Braddock was sent to America with an army, to ■■■■ the French from their possessions over the Alleghany mountains, and ■■■■ the river Ohio; and on his arrival at Alexandria, he held a council of war with the governors of Virginia, Maryland, Pennsylvania, New York, and the Massachusetts Bay;—and as those gentlemen well knew, that the country claimed by the French, over the Alleghany mountains, and south-westerly to the river Mississippi, was the unquestionable property of the Six Nations, and not of the Cherokees, ■■■■ any other tribe of Indians,—the general gave instructions to sir William Johnson to call together the Indians of the Six Nations, and lay before them their before-mentioned grant to the king in 1726,—wherein they had put all their hunting lands under his majesty's protection; to be guaranteed to them, and to their use:—And as general Braddock's instructions are clearly declaratory of the right of the Six Nations to the land under consideration, ■■■■ shall here transcribe the conclusive words of them,—And it appearing that the French have, from time to time, by fraud and violence, built strong forts within the limits of the said lands, contrary to the covenant chain of the said deed and treaties, you are, in my name, to assure the said nations, that I am come by his majesty's order, to destroy all the said forts, and to build such others, ■■■■ shall protect

and secure the said lands to them, their heirs and successors for ever, according to the spirit of the treaty; they do therefore call upon them to take up the hatchet, and come and take possession of their own lands."

That general Braddock and the American governors, singular in their opinion, as to the right of the Six Nations to the Alleghany mountains, and on both sides of the river Ohio, quite to the Mississippi, is evident, from the memorials which passed between the British and French courts in 1755.

In a memorial delivered by the king's ministers on the 7th June, 1755, the duke of Murepoix, relative to the pretensions of France to the above-mentioned lands, they very justly observed—"As to the exposition, which is made in the French memorial of the article of treaty of Utrecht, the court of Great Britain does not think it can have any foundation, either by the words or the intention of this treaty.

"1st. The court of Great Britain cannot allow of this article relating only to the persons of the savages, and not their country: the words of this treaty claim and precise, 'That is to say, The Five Nations, or Cantons, are subject to the dominion of Great Britain,—which, by the received exposition of all treaties, must relate to the country, as well as to the persons of the inhabitants:—it what France has acknowledged, in the same manner:—She had well weighed the importance of this acknowledgment at the time of signing this treaty, and Great Britain can never give it up. The countries possessed by these Indians very well known, and are all undetermined, it is pretended in the memorial; they possess and make them over as other proprietors do, in all other places."

"2d. Whatever pretext might be alleged by France, in considering these countries as the appurtenances of Canada: it is a certain truth that they have belonged, and (as they have not been given up, made to the English) belong still to the Indian nations; which, by the fifteenth article of the treaty of Utrecht, France agreed not to molest. Nullo in posterum impedimento, aut molestia afficiant."

"Notwithstanding all that has been advanced in this article, the court of Great Britain cannot agree to France having the least right to the river Ohio, the territory in question. [N. This is the country, from the Alleghany mountains to the Ohio, down the same, and on both sides thereof to the river Mississippi.]⁶

"Even that of possession, not, nor can it be alleged on this; since France cannot pretend to have had any such before the treaty of Aix-la-Chapelle, nor since, less it be that of certain forts, unjustly seized lately on lands which evidently belong to the Five Nations, or which were have made over to the crown of Great Britain its subjects, as may be proved by treaties and acts of the greatest authority.—What the court of Great Britain maintained, and what it insists upon, is, the Five Nations of the Iroquois, acknowledged by France to be the subjects of Great Britain, are, by origin, or by right of conquest, the lawful proprietors of the river Ohio, and the territory in question: And as to the territory, what has been yielded and made over by these people to Great Britain (which but he owned must be the just and lawful result of making an acquisition of this sort, she reclaims it, as belonging to her, having continued cultivating it for above twenty years past, and having made settlements in several parts of it, from the sources even of the Ohio to Pichawillanes, in the centre of the territory between the Ohio and the Wabash."

In 1755, the lords commissioners for trade and plantations were so solicitous to ascertain the territory of the Six Nations, that Dr. Mitchel, by their desire, published a large map of North America; and Mr. Pownall, the present secretary of the board of trade, then certified, as appears on the map,—That the doctor furnished with documents for the purpose from that board. In this map, Dr. Mitchel observes, "that the Six Nations have extended their territories, ever since the year 1672, when they subdued and were incorporated with the ancient Shawansee, the native proprietors of those countries, and the river Ohio: besides which, they likewise claim right of conquest the Illinois, and all the Mississippi, as far as they extend. This," he adds, "is confirmed by their claims and possessions in 1742, which include all the bounds here down, and none have ever thought fit to dispute them." And, in confirmation of this right of the Six Nations to the country of the Ohio, as mentioned by the king's ministers, in their memorial to the duke of Murepoix, in 1755, we would just remark, that the Six Nations, Shawansee, and Delaware, were in the actual occupation of the lands southward of the great Kenhawe for some time after the French had encroached upon the river Ohio: and that in the year 1752, these tribes had a large town on Kenhawe river, two hundred and thirty eight miles below the Scioto: That in the year 1753 they resided and hunted on the southerly side of the river Ohio, in the low country, at about hundred and twenty miles below the Great Kenhawe; in the year 1755, they

⁶ The French claimed in 1753. At the peace of 1763, the British negotiators at Ghent set up the same claim which they had refused to the French, and made it a *non qua non*, but they retraced their steps.

also a large town opposite to the mouth of the Scioto; *very place, where* the boundary line of the tract of land applied for by Mr. Walpole and his associates. But it is a certain fact, that the Cherokees never had any towns or settlements in the country southward of the great Kenhawa; that they do not hunt there, and that neither the Six Nations, Shawanese, nor Delawares, do now reside or hunt on the southerly side of the river Ohio, nor did not for several years before they sold the country to the king. These are facts which can be easily and fully proved.

In October, 1768, a congress held by the Six Nations at Fort Stanwix, they observed to sir William Johnson:—"Now, brother, you who know all our affairs, must be sensible that our rights go much farther to the southward than the Kenhawa,—and we have a very good and clear title as far as the Cherokee river, which we cannot allow to be the right of any other Indians, without doing wrong to posterity, and acting unworthy those warriors who fought and conquered it;—we therefore expect this our right will be considered."

In November, 1768, the Six Nations sold the king all the country on the southerly side of the river Ohio, as far as the Cherokee river; but notwithstanding that sale, soon as it was understood in Virginia, that government favoured the pretensions of the Cherokees, and that Dr. Walker and colonel Lewis (the commissioners sent from that colony to the congress at Fort Stanwix) had returned from thence, the late lord Botetourt sent those gentlemen to Charleston, South Carolina, to endeavour to convince Mr. Stuart, southern superintendent of Indian affairs, of the necessity of enlarging the boundary line which he had settled with the Cherokees;—and to run it from the Great Kenhawa to Holston's river. These gentlemen appointed commissioners by his lordship, they had been long acquainted with Indian affairs, and were well acquainted with the actual extent of the Cherokee country.—Whilst these commissioners in South Carolina, they wrote a letter to Mr. Stuart, as he had been but a very few years in the service, (and could not, from the nature of his former employment, be properly informed about the Cherokee territory,) respecting the claims of the Cherokees to the lands southward of the Great Kenhawa, and therein they expressed themselves as follows:

"CHARLESTON, CAROLINA, Feb. 2. 1769.

"The country southward of the Big Kenhawa was claimed by the Cherokees, now is property of the crown, as sir William Johnson purchased it of the Six Nations a very considerable expense, and took a cession from them at Fort Stanwix."

In 1768, the house of burgesses of the colony of Virginia represented to lord Botetourt, "That they have the greatest reason to fear the said (meaning the boundary line, the lords commissioners for trade and plantations have referred to, in the annexed to their lordships' report) if confirmed, would constantly open to the Indians, and others enemies to his majesty, a free and easy ingress to the heart of the country on the Ohio, Holston's river, and the Great Kenhawa; whereby the settlements which may be attempted in these quarters will, in all probability, be utterly destroyed, and that great extent of country [at least eight hundred miles in length] from the mouth of the Kenhawa to the mouth of the Cherokee river, extending eastward as far as the Laurel Hill, so lately ceded his majesty, to which no tribe of Indians at present set up any pretensions, will be entirely abandoned to the Cherokees; in consequence of which, claims totally destructive of the true interest of his majesty, may at some future time arise, acquisitions justly ranked among the most valuable of the late war be altogether lost."

From the foregoing detail of facts, it is obvious,

1st. That the country southward of the Great Kenhawa, at least as far as the Cherokee river, originally belonged to the Shawanese.

2d. That the Six Nations, in virtue of their conquest of the Shawanese, became the law proprietors of that country.

3d. That the king, in consequence of the grant from the Six Nations, made to his majesty at Fort Stanwix in 1768, is now vested with the undoubted right and property thereof.

4th. That the Cherokees never resided, nor hunted in that country, and have not any kind of right to it.

5th. That the house of burgesses of the colony of Virginia have, upon good grounds, asserted, [such as properly arise from the nature of their stations, and proximity to the Cherokee country,] that the Cherokees had not any just pretensions to the territory southward of the Great Kenhawa.

6th. That neither the Six Nations, the Shawanese, nor Delawares, do now reside or hunt in that country.

From these considerations, it is evident no possible injury can arise to his majesty's vice,—to the Six Nations and their confederacy, or to the Cherokees by permitting us to settle on lands comprehended in our contract with the commissioners of the treasury. If, however, there had been any treaty held with the Six Nations, since the cession made to his majesty at Fort Stanwix, whereby the crown is pledged, both to the Cherokees, and the Cherokees, no settlements

be made beyond the line marked on their lordships' report; — say, if such agreement has been made by the orders of government — tribes, (notwithstanding, as the commissioners have acknowledged, "the Six Nations" ceded property in the lands, — majesty") — we flat ourselves, that objection of their lordships in the second paragraph of their report, will be entirely obviated, by a specific clause being inserted in the king's grant to us, expressly prohibiting us from settling any part of same, until such time as we shall have first obtained his majesty's allowance, and full consent of the Cherokees, and the Six Nations and their confederates, for that purpose.

III. In regard to the third paragraph of their lordships' report, That it was the principle of the board of trade, after the treaty of Paris, "to confine the extent of settlements to such a distance from the sea-coast, as that these settlements should lie within the reach of the trade and commerce of this kingdom," &c. — we shall not presume to controvert; — but it may be observed, that the settlement of the country over the Alleghany mountains, and the Ohio, not understood, either before the treaty of Paris, nor intended to be so considered by his majesty's proclamation of October, 1763, "as without the reach of the trade and commerce of this kingdom," &c. ; — for, in the year 1748, Mr. John Hanbury, and a number of other gentlemen, petitioned the king for a grant of five hundred thousand acres of land over Alleghany mountains, and on the river Ohio and its branches; and the lords commissioners for trade and plantations then pleased to report to the lords committee of his majesty's most honourable privy council, "That settlement of the country, lying to the westward of the great mountains, was the centre of the dominions, would be for his majesty's interest, and the advantage and security of Virginia and the neighbouring colonies."

And on the 23d of February, 1748-9, the lords commissioners for trade and plantations again reported to the lords of the committee of the privy council, that they had "fully set forth the great utility and advantage of extending settlements beyond the great mountains (which report has been approved of by your lordships). — And as, by these new proposals, there is a great probability of having a much larger tract of the said country settled under former, we are of opinion, that it will greatly for his majesty's service, and the welfare and security of Virginia, to comply with the prayer of the petition."

And on the 18th of March, 1748-9, an instruction was sent to the governor of Virginia, to grant five hundred thousand acres of land

over the Alleghany mountains to the aforesaid Hanbury and his partners (who was part of the company of Mr. Walpole his associates); and that instruction forth, that "such settlements will be for interest, and the advantage security of our said colony, as well as the advantage of the neighbouring ones; in as much as our loving subjects will thereby enabled cultivate a friendship, carry on a extensive commerce with the nations of Indians inhabiting those parts; and such examples may likewise induce the neighbouring colonies to turn their thought towards designs of the nature." Hence we apprehend, it is evident, that a former board of trade, at which the late lord Halifax presided, was of opinion, that settlements over the Alleghany mountains were not against the king's interest, nor at such a distance from the sea-coast, as without "the reach of the trade and commerce of this kingdom," nor where its authority or jurisdiction could be exercised. But the report under consideration suggests, two capital objects of the proclamation of 1763, were, to confine future settlements "sources of the rivers which fall into the sea from the west and north-west," (or, in other words, to the eastern side of the Alleghany mountains) and to the three new governments of Canada, Florida, and West Florida; — and to this fact, the lords commissioners for trade and plantations recite a part of that proclamation.

But if the whole of this proclamation is considered, it will be found to contain the nine following heads; viz.*

1st. To declare to his majesty's subjects, that he erected four distinct and separate governments in America; viz. Quebec, East Florida, West Florida, and Grenada.

2d. To ascertain the respective boundaries of these four new governments.

3d. To testify the royal sense and approbation of the conduct and bravery, both of the officers and soldiers of the king's army, and of the reduced of the navy, who served in America, and reward them, by grants of lands in Quebec, and in East and West Florida, without fee or reward.

To hinder the governors of Quebec, East Florida, and West Florida, from granting warrants of survey, or passing patents for lands, beyond the bounds of their respective governments.

5th. To forbid the governors of any other colonies or plantations in America, from granting or passing patents for lands beyond the of any of the which into the Atlantic ocean from west or north-west, or upon any whatever, "which, not having been ceded

* The Proclamation in Appendix at end of No. 1.

or purchased by the king, are reserved to the Indians, or any of them."

6th. To reserve, "for the present," the king's sovereignty, protection, dominion, "for use of the Indians," all the lands not included within the limits of the said three governments, or within limits of the Hudson's Bay company; as also, the lands lying the westward of the of the rivers, which fall into the sea from the west north-west, and forbidding the king's subjects from making any purchases whatever, or taking possession of the lands so reserved, without his majesty's leave and license first obtained.

7th. To require all persons, who had made settlements on lands, purchased by the king from the Indians, to remove from such

8th. To regulate the future purchases of lands from the Indians, within such parts as his majesty, by that proclamation, permitted settlements to be made upon.

9th. To declare, that the trade with the Indians should be free and open to all his majesty's subjects, and to prescribe the manner how it shall be carried on.

And lastly, To require all military officers, and the superintendents of Indian affairs, to seize and apprehend all persons who stood charged with treasons, murders, &c. and who fled from justice, and taken refuge in the reserved lands of the Indians, to such persons to the colony, where they stood accused.

From this proclamation, therefore, it is obvious, that the sole design of it, independent of the establishment of the three new governments, ascertaining their respective boundaries, rewarding the officers and soldiers, regulating the Indian trade, and apprehending felons, to convince the Indians "of his majesty's justice and determined resolution to all reasonable of discontent," by interdicting all settlements on land not ceded to or purchased by his majesty; and declaring it to be, as we have already mentioned, his royal will and pleasure, "for the present, to reserve, under his sovereignty, protection, and dominion, the of the Indians, all the land territories lying westward of the of the rivers which fall into the sea from the west and north-west."—Can any words express more decisively the royal intention?—do they not explicitly mention, "That the territory is, at present, reserved, under his majesty's protection, of the Indians?—And Indians use for those lands which are bounded westerly by the south-east side of river Ohio, either residence or hunting, they were willing them; and accordingly did sell them to the king in November, 1768, (the of which sale,

will be fully explained in our observations on the succeeding paragraphs of report.)

—Of course, the proclamation, so far as included the settlement of included within that purchase, and undoubtedly ceased.—The late Grenville, who was, the of issuing this proclamation, the minister of this kingdom, always admitted, that design of was totally accomplished, so soon as country was purchased from the natives.

IV. In this paragraph, the mentions for trade and plantations mentions two reasons, for his majesty's entering into engagements with the Indians, for fixing a more precise and determinate boundary line, than was settled by the proclamation of October, 1763, viz.

1st. Partly for want of precision in the one intended by the proclamation of 1763.

And partly from a consideration of justice in regard to legal titles to

have, we presume, fully proved, in observations on the third paragraph.—That the design of the proclamation, so far as related to lands westward of the Alleghany mountains, for no other purpose than them, under his majesty's protection, for the present, for the use of the Indians; to which shall only add, that the line established by the proclamation, so far as it concerned the lands in question, could not possibly be fixed and described with more precision, than the proclamation itself describes it; for it declares, That "all the lands and territories lying the westward of the sources of the rivers, which fall the sea from the and north-west," should be reserved under his majesty's protection.

Neither, in our opinion, his majesty induced to enter into engagements with the Indians, for fixing a precise and determinate boundary, "partly from a consideration of justice, in regard to legal titles to lands," for there such (as shall prove) comprehended within the tract now under consideration.

But for a full comprehension of all reasons for his majesty's "entering into engagements with the Indians, for fixing a more precise and determinate boundary line," than was settled by royal proclamation of October, 1763, we shall take the liberty of stating the following facts:—In the year 1764, the king's ministers had it then in contemplation, to obtain an of parliament the proper regulation of the Indian commerce; providing a fund, (by laying a duty on trade) for the support of superintendents, commissaries, interpreters, &c., at particular forts in the country, where trade was to be carried on; and as a part of this system it thought order

avoid complaints the Indians, on account of encroachments on their hunting grounds, to purchase a large tract of territory from them, and establish, with their consent, a respectable boundary line, beyond which his majesty's subjects be permitted

In consequence of system, orders were transmitted sir William Johnson in year 1764, to call together the Six Nations,—lay proposition of boundary before them, take their opinion upon it.—This, apprehend, will appear evident from following speech made by sir William to Six Nations, a conference which he held with them, at Johnson-hall, May the 2d, 1765.

“BROTHERN,—The I have this time mention, in regard settling a boundary between you and English. I sent a message to some of your nations some time ago, to acquaint you, that I confer with you at this meeting upon it. The king, whose generosity and forgiveness you have already experienced, being very desirous to put a final end to disputes between his people and you, concerning lands, and to do you strict justice, has fallen upon the plan of a boundary between provinces and the (which no white shall to invade) as the best and surest method of ending such like disputes, and securing your property to you, beyond a possibility of disturbance. This will, I hope, appear to you reasonable, so just on the part of the king, and so advantageous to you and your posterity, that I can have no doubt of your cheerfully joining with me settling such a division line, as will be best for the advantage of both white men and Indians, and as shall best agree with the extent and increase of each province, and the governors, whom I shall consult upon that occasion, as soon as I am fully empowered; but in the mean time I am desirous to know in what manner you would choose to extend it, and what you will heartily agree to and abide by, in general terms. At the same time I am to acquaint you, that whenever the whole is settled, and that it shall appear you have so far consulted the increasing state of our people, as to make any convenient cessions of ground where it is most wanted, that then you will receive a considerable present in return for your friendship.”

To this speech the sachems and warriors of the Six Nations, after conferring some time among themselves, gave an answer to sir William Johnson, and agreed to the proposition of the boundary line;—which and the other transactions of this conference, sir William transmitted to the office of the lords commissioners for trade and plantations.

From a change of the administration, which

formed the above system of obtaining an act of parliament for regulating the Indian trade, and establishing the boundary line, from some other public unknown to us, no measures were adopted, until the latter end of the year 1767, for completing the negotiation about this boundary line.—in mean time, viz. between the years 1765 1768, the king's subjects removed in great numbers from Virginia, Maryland, and Pennsylvania, and over the mountains; upon account the Six Nations became so irritated that in the year 1766 they killed several persons, and denounced a general war against colonies; and appease them, and avoid such a public calamity, a detachment from the regiment of foot that year sent from the garrison of Fort Pitt, such settlers were seated at Red Stone Creek, &c., but endeavours threats of this detachment proved ineffectual, and they returned to the garrison without being able to their orders. The complaints of the Six Nations however continuing and increasing, account of their settling of their lands over the mountains, general Gage wrote to the governor of Pennsylvania on the 7th of December, 1767, and after mentioning these complaints, he observed, “You are a witness how little attention been paid to the several proclamations have been published; and that even the moving those people from the lands in question, which attempted this by the garrison at Fort Pitt, has been only a temporary expedient. We learn they are returned again to the same encroachments at Stone Creek and Cheat River, in greater numbers than ever.”

On the 3d of January, 1768, the governor of Pennsylvania a message the general assembly of the province, with the foregoing letter from general Gage,—and the 13th the assembly, in the conclusion of a message to the governor on the subject of Indian complaints, observed, “To obviate which of their discontent, and effectually to establish between them and his majesty's subjects a peace, of opinion, that a speedy confirmation of the boundary, a just satisfaction made to them for their lands on this side of it, absolutely necessary. By this their present complaints of encroachments will be removed, and the people on frontiers will have a sufficient country to settle and hunt in without interfering with them.”

On the of January, 1768, Mr. Gallo-way, the speaker of the assembly of Pennsylvania, and committee of correspondence, wrote on the subject of the Indians' disquietude, by order of the house, to their agents Richard Jackson Benjamin Franklin,

quires, in London, and therein they said, "That the delay of the confirmation of [] boundary, the natives have warmly complained of, and that although they have received no consideration for the lands agreed to be [] the crown [] our side of the boundary, yet that its subjects are daily settling and occupying those very lands."

■ April, 1763, the legislature of Pennsylvania finding that the expectations of an Indian [] hourly increasing, occasioned by the settlement of the land over the mountains, not sold by the natives; and flattering themselves, that orders would [] from England for the perfection of the boundary line, they voted the sum of one thousand pounds, to be given [] present, in blankets, strouds, &c., [] the Indians upon the Ohio, with a view of moderating their resentment, until these orders should arrive: [] the governor of Pennsylvania being informed, that a treaty was soon to be held at Fort Pitt by George Croghan, Esq., deputy agent of Indian affairs, by order of general Gage and sir William Johnson, he [] his secretary and another gentleman, [] commissioners from the province, to deliver the above present to the Indians [] Fort Pitt.

On the 2d of May, 1768, the Six Nations made the following speech at that conference: "Brother,---It is not without grief [] we see our country settled by you, without [] knowledge or consent; and it is a long time since we complained to you of [] grievance, which we find has not as yet been redressed; but settlements are still extending further into our country: some of [] made directly on our war-path, leading into [] enemy's country, and [] do not like it. Brother, you have laws among you [] govern your people by; and it will be the strongest proof of the sincerity of your friendship, to let us see that you remove the people from our lands; as [] look upon it, they will have time enough to settle them, when you [] purchased them, and the country becomes yours."

The Pennsylvania commissioners, in [] 1) this speech, informed the Six Nations, that the governor of that province had [] four gentlemen with his proclamation and the act of assembly (making [] felony of death without benefit of clergy, [] continue [] Indian lands) to such settlers over [] [] were seated, within the limits of Pennsylvania, requiring them to vacate their settlements, but [] to no avail: That the governor of Virginia [] likewise, to as little purpose, issued his proclamations and orders, and that general Gage [] twice ineffectually sent parties of soldiers to remove the settlers from Red Stone Creek and Monongahela.

■ soon as Mr. Jackson and Dr. Franklin received the foregoing instructions from the

general assembly of Pennsylvania, they waited upon the American minister, and urged the expediency and necessity of the boundary line being speedily concluded; and in consequence thereof, additional orders [] immediately transmitted [] William [] that purpose.

It is plain therefore, that the proclamation of October, 1763, [] designed, as the lords commissioners for trade and plantations have suggested, to signify the policy of [] kingdom, against settlements over the Alleghany mountains, after the king had actually purchased the territory; and that the [] for purchasing the lands comprised within that boundary were [] avoid an Indian rupture, and give [] opportunity to the king's subjects, quietly and lawfully [] settle thereon.

V. Whether the [] commissioners for trade and plantations [] well founded in their declarations, [] the lands under consideration "are [] of all advantageous intercourse with this kingdom," [] be fully considered in our observations on the sixth paragraph; and as to "the various propositions for erecting new colonies in the interior parts, which their lordships say, have been, in consequence of the extension of the boundary line, submitted [] to the consideration of government, particularly in that part of the [] wherein are situated the lands now prayed for, and the danger of complying with such proposals have been so obvious [] every attempt for carrying them into execution,"---we shall only observe on [] paragraph, that as we do not know what these propositions were, or upon what principle the proposers have been defeated, it is impossible for us to judge, whether they are any ways applicable to [] case.---Consistent, however, with our knowledge, no more [] one proposition, for the settling [] of a part of the lands in question, [] been presented [] government, [] that was from Dr. Lee, thirty-two other Americans, and two Londoners, in the year 1764, praying that his majesty would grant to them, without any purchase-money, two millions five hundred thousand acres of land, in one or more surveys, to be located between the thirty-eighth [] forty-second degrees of latitude, over the Alleghany mountains, and [] conduct of their possessing these lands twelve years without the payment of any quit-rent, (the same not to begin until the whole two [] five hundred thousand acres [] surveyed) [] that they [] be obliged [] on two hundred [] in twelve years:---surely, the lords commissioners [] not mean this proposition [] that [] similar, and would apply to the case [] reported upon;---and especially as Dr. Lee and his associates did not propose, as [] do, either to purchase the lands, [] the quit-rents to

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his majesty, and clear of all deductions, or be all the whole expense of establishing and maintaining the civil government of the country.

VI. In the sixth paragraph the lords commissioners observe, That "every argument on the subject, respecting the settlement of lands in that part of the country now prayed for, collected together with great force and precision in a representation made to his majesty by the lords commissioners for trade and plantations, in March, 1763."

That it may be clearly understood, what the sense of this representation, we shall take the liberty of mentioning, that on the first of October, 1767, and during the time that the earl of Shelburne, secretary of state for the southern department, an was entertained of forming, "at the expense of the crown," three governments in North America, viz. one at Detroit (on the waters between lake Huron and lake Erie); one in the Illinois country, and one on the lower part of the river Ohio; and in consequence of such ideas, a reference made by his lordship to the lords commissioners for trade and plantations, for their opinion on these proposed governments.

Having explained the sense of the representation, which is so very strongly earnestly insisted upon by the lords commissioners for trade and plantations, containing every argument on the subject of the lands which are at present before your lordships; we shall now give our reasons for apprehending that it is so far from applying against our case, that it actually declares a permission would be given to settle the very lands in question.

Three principal reasons are assigned in the representation, as conducive to the great object of colonizing upon the continent of North America, viz.

"1st, Promoting the advantageous fishery carried on upon the northern coast.

"2dly, Encouraging the growth and culture of naval stores, and of other materials, to be transported hither, in exchange for perfect manufactures and other merchandises.

"3dly, Securing a supply of lumber, provisions, and other necessaries for the support of our establishments in the American islands."

On the first of these we apprehend, it is not necessary for us to make many observations; as the provinces of New Jersey, Pennsylvania, Maryland, and Virginia, and the colonies southward of them, have not, and from the sense of their commerce will not, promote the fishery, more, it is conceived, than the proposed Ohio colony. These provinces are, however, beneficial to this kingdom, in culture and exportation of articles;—as it is humbly presumed the Ohio colony will likewise be, if the pro-

duction of staple commodities is allowed to be within that description.

On the second and third general reasons of the representation we shall observe, that no part of his majesty's dominions in North America will require less encouragement for the growth and culture of naval stores and raw materials; and for the supplying the islands with lumber, provisions, &c. than the solicited colony in the Ohio;—for the following reasons:

First, The lands in question are such, that the climate temperate, the native grapes, worms, and mulberry trees every where grow spontaneously in the very low lands; iron-ore is plenty in the hills; and no soil is better adapted for the culture of the tobacco, flax, and cotton, than that of the Ohio.

Second, The country is well watered by several navigable rivers, communicating with each other; and by which, and a short land-carriage of only forty miles, the produce of the Ohio can, even now, be sent cheaper to the sea-port town of Alexandria, on the river Potomac (where general Braddock's transports landed his troops) than the value of merchandise is at this time sent for Northampton or London.

Third, The river Ohio is, at all seasons of the year, navigable for large boats, like the West country barges, rowed only by four or five men: and from January to the month of April, large ships may be built on the Ohio, and sent laden with hemp, iron, flax, &c. to this kingdom.

Fourth, Flour, corn, beef, ship-plank, and other necessaries, can be sent down the stream of Ohio to West Florida, and from thence to the islands, much cheaper and in better order, than from New York or Philadelphia.

Fifth, Hemp, tobacco, iron, and such bulky articles, may also be sent down the stream of the Ohio to the sea, at least fifty per centum cheaper than these articles are ever carried by a land-carriage, of only sixty miles, in Pennsylvania; where wagonage is cheaper than in any other part of North America.

Sixth, The expense of transporting British manufactures from the Ohio to the Ohio colony, will not be so much, as is now paid and must ever be paid, to a great part of the counties of Pennsylvania, Virginia, and Maryland.

From this state of facts we apprehend, it is clear, that the colony in question is altogether capable, and advantageously admit, from their fertility, situation, and the small expense attending the exporting the produce of them to this kingdom, "of conducing to the great object of colonizing upon the continent of North America;" but it may be particularly elucidate this important point, we shall state the freedom of observing,—That it is not disputed, even acknow-

ledged, by the very report under consideration,—that the climate and soil of the Ohio are so favourable as to have described them;—and as the native silk-worms, it is a truth, that above ten thousand weight of cocoons was, in August, 1771, sold at the public fusture in Philadelphia; and that the silk produced from the native worm is of a good quality, has been much approved of in this city. As to hemp, we are ready to make it appear, that it grows, as we have represented, spontaneously, and of a good texture, on the Ohio. When, therefore, the increasing demand of this kingdom upon Russia, for this very article, is considered, and that none has been exported from the several American colonies, as their soil will not produce it,—this dependence must be admitted as a subject of great national consequence, and worthy of serious attention of government.—Nature has pointed out to us where any quantity of hemp can be soon and easily raised, and by that means, not only a large quantity of specie may be retained yearly in this kingdom, but our own subjects can be employed most advantageously, and paid in the manufactures of this kingdom.—The state of the Russian Empire is briefly thus:

From the year 1731, to 1791, two hundred and fifty ships were, on a medium, sent each year to St. Petersburg, Narva, Riga, and Archangel, for hemp, - - - 350 ships.
And from the year 1771, five hundred ships were also sent for that purpose, - - -

Increase in ten years, 250 ships.

Here then, it is obvious, that in the last ten years there has been on a medium, an increase of two hundred and fifty ships in the Russian trade. Can it be consistent with the wisdom and policy of the greatest naval and commercial nation in the world, to depend wholly on foreigners for the supply of an article, in which is included the very existence of her navy and commerce! Surely not; and especially when God has blessed us with a country yielding naturally the very commodity, which draws our money from us, and renders us dependent on it.*

* "It is in settlements on the Mississippi and Ohio we must grow hemp and flax, which may, in those fertile tracts, be cultivated in such abundance, as to enable us to undersell all the world, as well as supply our own consumption. It is on those high, dry, and healthy lands, that vineyards would be cultivated to the best advantage, as many of those hills contain quarries of stone, and not in the low, unhealthy coasts of our present colonies. Of such infinite consequence is the production of staples in her colonies, were all the people of those colonies employed, and all of the tobacco ones (except those actually employed in raising tobacco) now spread over those parts of our territories to the southwest and westward, and

we have only hitherto generally a small expense of carriage between the waters of Potomac and those of the Ohio, we endeavour to show how very ill the want of trade and plantations in the fifth paragraph of their report, viz. That the lands in question "are out of all advantageous intercourse with the kingdom." In order, however, that a proper opinion may be formed on this important article, we shall take the liberty of stating the particular expense of carriage, even during the last French war, (when there was no back carriage from Ohio to Alexandria) as it may be found, it was then only a halfpenny per pound, as will appear from the following account, the truth of which we shall fully ascertain, viz.

From Alexandria to	Cumberland, by water,	1s. 7d. per cwt.
From Port Cumberland	to	Creek,
	fourteen dollars per wagon load; each wagon carrying fifteen hundred weight,	- - - 4 2
		- - - 5 9

Note. The distance was then seventy miles, but by a new wagon road, lately made, it is now but forty miles—a saving, of course, of above one half the 5s. 9d. is at present experienced.

If it is considered that this expense of carriage was in time of war, when there were no other goods from the Ohio, we cannot doubt but every intelligent mind will be satisfied, that it is now much less than is daily paid in London for the carriage of woollens, cutlery, iron ware, &c., from several counties in England.

The following is the cost of carriage from Birmingham, &c. viz.

From Birmingham to London,	4s. per cwt.
From	in
shire,	5
From Sheffield,	7
From Warrington,	7

If the lands which we present under consideration as the lords commissioners for trade and plantations say, "out of all advantageous intercourse with the kingdom," we are at a loss to conceive by what standard board calculates the rule of "advantageous intercourse."—If the king's subjects, over the Alleghany mountains, and on

consequently employed in the same manner as the few are who do reside therein, Britain, in such a case,

freight, and common, which would accrue. To enlarge upon all the advantages of such a change, would be impertinence itself.—Political Essays concerning the British Empire.

the Ohio, within the new-erected county of Bedford, in the province of Pennsylvania, are altogether clothed with manufactures, is the country "out of all advantageous intercourse with this kingdom?"—If merchants in London are daily shipping British manufactures, the of the very settlers the in question, does that exportation within the commissioners description of what is "out of all advantageous intercourse with this kingdom?" In short, the lords commissioners admit, upon their own principles, that it is a political and advantageous intercourse with this kingdom, when the and settlers are confined to the side of the Alleghany mountains. then the expense of carriage, of the very coarsest and best-vest clothes, other articles, from the mountains to the Ohio, only about seventy miles, and which will not, most increase the price of carriage above halfpenny a yard, the trade connexion with the settlers on the Ohio, into a predicament "that shall be, as the lords commissioners have said, out of all advantageous intercourse with this kingdom?"—On the whole, "if the poor Indians in the remote parts of North America are now able to pay for the linens, woollens, were they furnished with by English traders, though Indians have nothing but what they get by hunting, and the goods are loaded with the impositions and knavery can contrive, to enhance their value; will not industrious English farmers, employed the culture of hemp, flax, silk, &c., "be able to pay for what shall be brought to them in the fair way of commerce;" and especially when it is remembered, there is no other affordable market the sale of these articles, than in this kingdom?—And if "the growths of the country find their way out of it, will not the manufactures of kingdom, where the hemp, &c. be sent to, find their way into it?"

Whether Nova Scotia, and East and West Florida have yielded advantages and returns equal to the sums expended in founding and supporting them, even advantages, such as lords commissioners for trade and plantations, in their representation of 1768, seemed to expect, it is not our business to investigate;—it is, we presume, sufficient for mention, that those "many principal persons in Pennsylvania," as observed in representation, whose names and association lie before your majesty in council, for purpose of making settlements in Nova Scotia," have, several years since, been convinced of the impracticability of exciting settlers move from the middle colonies, and settle in that province; and even of those who were prevailed to go Nova Scotia, the great part of returned with great com-

plaints against severity and length of the winters.

to and West Florida, are persuaded, morally impossible to force the people of the middle provinces, between thirty-seven and forty degrees north latitude (where there is plenty of vacant land in their own temperate climate) remove the scorching, unwholesome heats of these provinces.* The inhabitants of Montpelier might as easily be persuaded to remove to the northern parts of Russia, or to Senegal.—In short, it is contending with nature, and the experience of all ages, to attempt to compel a people, born and living in temperate climates, and in the neighbourhood of rich, healthful, uncultivated country, to travel several hundred miles to a sea-port in order to make a voyage to sea, and settle either in extreme hot or cold latitudes. If the county of York vacant and uncultivated, and the southern inhabitants of this island in want of land they suffer themselves to be driven to the North of Scotland!—Would they not, in spite of all opposition, first possess themselves of that fertile country?—Thus much we have thought necessary to remark, in respect to the general principles laid down in the representation of 1768; and we hope we have shown, that arguments therein made of, do not in degree militate against the subject in question; but that they were intended, and do solely apply to "new colonies proposed to be established," as the representation says, "at expense, to this kingdom, at the distance of above fifteen hundred miles from the sea, which from their inability to find wherewith to pay for the manufactures of Great Britain, will probably lead to manufacture for themselves, as they would," continues the representation, "be separated from the old colonies by tracts of unpeopled desert."

It only, for to inquire, whether it is the intention of the lords commissioners for trade and plantations in 1768, that the territory, which would included within the boundary line then negotiating with the Indians (and which was the one, that was that year perfected) should continue useless wilderness, be settled and occupied by his majesty's subject.—The very representation itself, which the present lords commissioners trade and plantations say,

* "We think of nothing but extending settlements still farther three *periferous* sea coasts, even to the weakly leagues of East Florida, and the straits of Mobile and Pensacola. The only use of new settlements in America for the people, in the northern and other colonies, who at hands to make staple commodities Britain, but our will to to three if more than they do in Carolina Georgia. The climate of Florida is more temperate, the more barren and the situation much worse in every respect."—*State of Great Britain and America*, Dr. Mitchell

contains "every argument on the subject," furnishes an ample and satisfactory solution to this important question. The lords commissioners in 1763, after pronouncing their opinion against the proposed three new governments, as above stated, declare,—"They ought to be carefully guarded against, by encouraging the settlement of that extensive tract of sea-coast hitherto unoccupied; which, say their lordships, together with the liberty the inhabitants of the middle colonies will have (in consequence of the proposed boundary line with the Indians) of gradually extending themselves backwards, will effectually and beneficially answer the object of encouraging population and consumption, than the erection of new governments; such gradual extension might, through the medium of a continual population, upon even the same extent of territory, preserve a communication of mutual commercial benefits between the remotest parts and Great Britain, impossible to exist in colonies separated by tracts of unpeopled desert."—"Can any opinion be more clear and conclusive, in favour of the proposition which we have humbly submitted to his majesty!—for their lordships positively say, that the inhabitants of the middle colonies will have liberty of gradually extending themselves backwards; but is it not very extraordinary, that after near two years deliberation, the present lords commissioners for trade and plantations should make a report to the lords of the committee of the privy council, and therein expressly refer to that opinion of 1763, in which they say, "every argument on the subject is collected together with great force and precision," and yet that, almost in the same breath, their lordships should contravene that very opinion, and advise his majesty "to check the progress of these settlements?"—And that "settlements at that distant part of the country ought to be discouraged as much as possible, and another proclamation should be issued declaratory of his majesty's resolution, not to allow, for the present, any settlement beyond the line;"—to wit, beyond the Alleghany mountains?—How strange and contradictory is this conduct!—But we forbear any strictures upon it;—and shall conclude our remarks on this head, by stating the opinion, at different times, of the lords commissioners, for trade and plantations, on this subject.

■ 1748, their lordships expressed strongest desire to promote settlements over mountains and the Ohio.

In 1764, the then lords commissioners for trade and plantations declared, (in consequence of the boundary line at that time negotiating)—that the inhabitants of the middle colonies would have liberty of gradually extending themselves backwards.

In 1770, the earl of Hillsborough actually

recommended the purchase of a of over mountains, sufficient a colony, and then down the lords commissioners of the treasury, to know whether their lordships would treat with Mr. Walpole his associates, for such purchase.

In 1772, the earl of Hillsborough, and the other lords commissioners for trade and plantations, made a report on the petition of Mr. Walpole and his associates, and referred to the representation of the board of trade in 1763, "as containing every on the subject, collected together with force and precision;"—which representation declared, as we have shown, "That the inhabitants of the middle colonies will have liberty to extend backwards" the identical words in question; and yet, notwithstanding such reference, strongly made from the present board of trade to the opinion of that board,—the earl of Hillsborough, and the other lords commissioners for trade and plantations, have now, in direct terms, reported against the absolute engagement and opinion of the board in 1764.

■ May be asked, what was intended by the expressions in the representation of 1763, of gradually extending themselves backwards? It is answered, they were only in contradistinction to the proposal of erecting at that time three new governments at Detroit, &c.; and therefore exciting, the representation says, the stream of population to various distant places. In short, it was, we think, beyond all doubt, the "precise" opinion of the lords commissioners in 1763, that the territory, within the boundary line, then negotiating, since completed, would be sufficient at that time—to the object of population and consumption; and that, until that territory was fully occupied, it was not necessary to erect the proposed three governments "at an expense this kingdom," in place, their lordships observed, "separated by means tracts of unpeopled desert."

To conclude observations on the sixth paragraph, would just remark,—That we have demonstrated, that the inhabitants of the middle colonies cannot be compelled to exchange the soil and climate of these colonies, either for the severe colds of Nova Scotia and Canada, or the unwholesome heats of and West Florida. Let us next inquire, what would be the effect of confining these inhabitants (if it practicable) within narrow bounds, and thereby preventing them from exercising their natural inclination of cultivating lands?—and whether such restriction would not force them to manufactures, to rival the mother-country!—To these questions, the lords commissioners have, with much candour, replied, in representation of 1768,—"We admit, their lordships, "as an undeniable principle

ple of policy, that, with a view to present manufactures, it is necessary and proper to open of territory for colonization, proportioned of people, as a large number of inhabitants, cooped up in narrow limits, without a sufficiency of land for produce, would be compelled to turn their attention to industry manufactures."—But their lordships the same time, observe,—“that the encouragement given to the settlement of the colonies upon the coast, the effect which such encouragement has had, has already effectually provided for this object?”—In what parts of North America this encouragement has thus provided for population, their lordships have mentioned. the establishment of the governments of Quebec, Nova Scotia, and the Island of St. John's, or and West Florida, was intended by their lordships as that effectual provision,—we shall presume to deny the proposition, by asserting, as an undoubted truth,—that although there is at least a million of subjects in the middle colonies, none have emigrated from thence, and settled in these new provinces;—and for that reason, and from the very nature of colonization itself, we affirm, that we will ever be induced to exchange the healthy, temperate climate of Virginia, Maryland, and Pennsylvania, for the colds or heats of Canada and Nova Scotia, or East and West Florida:—In short, it is in the power of to give any encouragement, that can compensate for a desertion of friends and neighbours,—dissolution of family connexions, and abandoning a soil and climate infinitely superior to those of Canada, Nova Scotia, or the Floridas?—Will therefore the inhabitants of the middle provinces, whose population is great beyond example,* and who have already made some advances in manufactures, “by confining them to their present narrow limits,” be necessarily compelled to convert their whole attention to that object? How then shall this, in the of things, be prevented, except, as the lords commissioners have justly remarked, “by opening an extent of territory proportioned to their increase?”—But where a territory be found proper for “the colonization of the inhabitants of the middle colonies?” We answer,—in the very country, which the lords commissioners have that the inhabitants of these colonies would have liberty to settle in;—a country which majesty has purchas-

the Nations; one, where several of his subjects already settled; one, where lords have acknowledged, “a gradual extension might, through the medium of a continued population, upon extent of territory, pre a communication of mutual commercial benefits between its extreme parts and Great Britain.”

VII. This paragraph introduced, by referring to the of a letter from the commander-in-chief of his majesty's forces in North America, by the earl of Hillsborough before the lords commissioners for trade and plantations;—but their lordships have not mentioned either the general's name, or the time when the letter was written, or what occasioned delivering his opinion upon the subject of colonization in general, in the “remote countries”—we can only conjecture general Gage the writer of the letter, and that it was wrote about the year 1768,—when the plan of the three new governments was under the consideration of the then lords commissioners for trade and plantations, and before the lands on the Ohio were bought from, and the boundary line established with the Six Nations.—Indeed, we think it clear, that the general had no other lands, at that time, under his consideration than what he calls “remote countries,” such as the Detroit, Illinois, and the lower parts of the Ohio;—for he speaks of “foreign countries,” from which it “would be too far to transport kind of naval stores,” and for the same reason could not, i.e. says, supply the sugar islands “with lumber and provisions.” He mentions also, “planting colonies so vast a distance, that the very long transportation (of silk, wine, &c.) must probably make them dear for any market,” and where “the inhabitants could not have any commodities to barter for manufactures, except skins and furs.” And what opinion, fully evinces general was giving his sentiments upon settlements at Detroit, &c., and not on the territory in question, is, that he says “will be a question likewise, whether colonization of this kind could be effected without an Indian war, and fighting for every inch of the ground.” Why the for trade and plantations should inculcher their report with the opinion

* “Besides staple commodities, there is another more point to be considered in the colonies, which is their great and daily necessity, for which, unless we make provision in time, they can never submit by a dependence on Britain. There are at present (in the year 1770) high three millions of people in them, who may, in twenty or thirty years increase to six millions, as many as there are in England.”—*Wynne's History of the* *rich Emper in America*, vol. II. p. 360

* That the use the colonies for settlements and migrations in North America is for the great increase of the people who are already there, and to enable them to subsist by a dependence upon her, which they never do, unless they extend their settlements.—*History*, vol. II. p. 360

* “I apprehend we well know, the penal and prohibitory laws ever thought of, will not be sufficient to prevent manufactures in a country whose colonies surpass the number at any subject industry of it, and thus will be seen if our people remain confined within the mountains &c.—The interest of Great Britain considered with regard to the Colonies.”—*Published* in 1768

delivered the latter end of that year, ■■■ the lords commissioners ■■■ trade and plantations, by Mr. Montague, agent for the colony.—The house of burgesses say,—“We humbly hope, that ■■■ shall obtain your royal indulgence, when ■■■ give it ■■■ ■■■■, that it will be for your majesty's service, and the interest of your American dominions in general, to continue the encouragements” (which ■■■ a total exemption from any consideration-money whatsoever, and a remission of quit-rent for ten years, and of all kinds of taxes for fifteen years) “for settling those frontier lands.” By this means, the house observed, “New settlements will be made by people of property, obedient subjects ■■■ government; but if the present restriction should continue, ■■■ have the strongest ■■■■ to believe, that country will become the resort of fugitives and vagabonds, defiers of law and order, and who in time may form a body dangerous ■■■ the peace and civil government of this colony.”

We come now to the consideration of the 9th, 10th, and 11th paragraphs.

In the 9th, the lords commissioners for trade and plantations observe, “That admitting the settlers over the mountains, and ■■■ the Ohio, to be as numerous as report ■■■■ them ■■■ be,” (and which we shall, from undoubted testimony, prove to be not less than five thousand families, of at least six persons to a family, independent of ■■■ thousand families, which are also settled ■■■ the mountains, within the limits of the province of Pennsylvania) yet their lordships say, “It operates strongly in point of argument against what is proposed.” And their lordships add, “if the foregoing reasoning be any weight, it ought certainly to induce the lords of the committee of the privy council, to advise his majesty to take every method to ■■■■ the progress of these settlements; and not ■■■ make such grants of the land, ■■■ will have ■■■ immediate tendency to encourage them.”

Having, ■■■ presume, clearly shown, that the country southward of the Great Kanawa, quite to the Cherokee river, belonged to the Six Nations, and ■■■ the Cherokees; that now it belongs to the king, in virtue of ■■■ majesty's purchase from the Six Nations; that neither these tribes, nor the Cherokees, do hunt between the great Kanawa and the land opposite ■■■ the Scioto river; that, by the present boundary-line, the lords commissioners for trade and plantations would sacrifice to the Cherokees ■■■ extent of country of at least eight hundred miles in length, which his majesty has bought and paid for; that the ■■■ limits of Virginia do not extend westward, beyond the Alleghany mountains; that since the purchase of the country from the Six Nations, ■■■ majesty has not annexed it, nor any ■■■ of it, ■■■ the colony of Virginia; that

there are no settlements made under ■■■ titles, on ■■■ part of the lands we have agreed for with the lords commissioners of the treasury; that the year 1748, ■■■ strongest marks of royal encouragement were given ■■■ settle the country over the mountains; that the suspension of this encouragement, by the proclamation of October, 1763, ■■■ merely temporary, until the lands were purchased from the natives;—that the avidity to settle these lands was so great, that large settlements ■■■ made thereon before they were purchased;—that although the settlers ■■■ daily exposed to the cruelties of ■■■ savages, neither a military force, nor repeated proclamations could induce them vacate these lands; that the soil of the country over the mountains is excellent, and capable of easily producing hemp, tobacco, iron, wine, &c. ■■■ at

can be cheaply conveyed to a seaport for exportation;—that the charge of carriage is so very small, it cannot possibly operate to the prevention of the use of British manufactures; that the king's purchasing the lands from the Indians, and fixing a boundary-line with them, was for the very purpose of his subjects settling them; ■■■ that the commissioners for trade and plantations in 1768,—the inhabitants of the middle have liberty for that purpose.

And to this train of facts, let us add, that ■■■ the congress, held with the Six Nations at Fort Stanwix in 1763, when his majesty purchased the territory ■■■ the Ohio, Messrs. Penn also bought from these nations a very extensive tract of country over the Alleghany mountains, and on that river joining to the very lands in question. That in the spring 1769, Messrs. Penn opened their land-office in Pennsylvania, for the settling the country which they had ■■■ bought ■■■ Fort Stanwix; and all such settlers ■■■ had seated themselves over the mountains, within the limits of Pennsylvania, before the lands were purchased from the natives, have since obtained titles for their plantations: That in 1771, a petition ■■■ presented ■■■ the assembly of the province of Pennsylvania, praying the county may ■■■ made over these mountains:—That the legislature of that province, in consideration of the great number of families settled there, within the limits of that province, did that year enact a law, for the erection of the lands over the mountains into a new county, by the name of Bedford county: That in consequence of such law, William Thompson, esq., was chosen to represent it in ■■■ general assembly: That a sheriff, coroner, justices of the peace, constables, and other civil officers ■■■ appointed and do reside over the mountains: That all the king's subjects, who ■■■ less than five thousand families, who have made locations and settle-

ments on the lands, southward of, and adjoining the southern line of Pennsylvania, live there, without any degree of order, law, or government: That being this lawless situation, continual quarrels prevail among them: That they have already infringed the *boundary-line*, killed several Indians, and encroached the lands, on the opposite side of Ohio; and that disorders of the most dangerous nature, with respect the Indians, the *boundary-line*, and the *old colonies*, will soon take place among these settlers, if law and subordination are not immediately established among them.—Can facts be possibly perverted so to operate, either in point of argument or policy, against the proposition of governing the king's subjects on the in question.

It ought to be considered also, that we have agreed to pay as much for a small part of the cession made Fort Stanwix, the whole cession cost the crown, and the same time to be at the entire expense of establishing and supporting the proposed new colony.*

The truth is, the inhabitants already settled on this tract of country are in an ungoverned and lawless situation, that the very Indians themselves complain of it; so that, if they are not governed, an Indian war will be the inevitable consequence. This, we presume, is evident both from the correspondence of general Gage with the earl of Hillsborough,—and a speech of the chiefs of the Delawares, Munies, and Mohickons, living on the Ohio, to the governors of Pennsylvania, Maryland, and Virginia, lately transmitted by the general to his lordship.

In this speech these nations observe, the sale of the lands to the king Ohio,—"Great numbers of your people have great and settled throughout this country, and try to tell you, several quarrels have happened between your people and ours, in which people have been killed on both sides, and that we now see the nations round us and

your people ready to embroil in a quarrel, gives great concern, as we, on our parts, want to live in friendship with you. As you have always told us, you have laws to govern your people by,—but do not see that you have; therefore, brethren, you can upon method of governing your people, who live between the great mountains and the Ohio river, and who are very numerous, it will be out of the Indians power govern their young men; for we assure you, the black clouds begin to gather fast in this country, and if something is not soon done, these clouds will deprive us of seeing the sun. We desire you to give the greatest attention what we now tell you; as it comes from our hearts, and a desire have to live in peace friendship with brethren English, and therefore it grieves us to see some of the nations about us and your people ready strike each other. We find your people very of our rich;—We them quarrelling with each other every day about land, and burning another's houses, so that we do not know how soon they may the river Ohio, and drive us from our villages; nor do we see you, brothers, take any care to stop them."

This speech, from of such great influence and weight upon the Ohio, says much information.—It establishes the fact, of the settlers mountains being very numerous;—it shows entire approbation of the Indians, respect a colony being established on the Ohio;—it pathetically complains of the king's subjects not being governed;—and it confirms the mention mentioned by the lords commissioners for trade and plantations in the eighth paragraph of their report, "that if the settlers suffered to continue in lawless state of anarchy and confusion, they will commit such abuses as cannot of involving in quarrels and disputes with the Indians, and thereby danger the security of his majesty's colonies."

The lords commissioners for trade and plantations, however, pay no regard to these circumstances, but themselves with observing, "We see nothing to hinder the government of Virginia from extending the laws and constitution of that colony to such as may have already settled there under legal titles." To this we repeat, that there are no such persons, as have settled under legal titles, and admitting there were, as their lordships say in the tenth paragraph, "it appears them, there some possessions derived from grants made by the governor council of Virginia," and allowing that the laws constitution of Virginia did, as they unquestionably do not,—extend to territory, have the lords commissioners proposed any expedient for governing those many thousand families, who have

* The parliamentary grants civil establishment of the provinces of Nova Scotia, Georgia, East and Florida, to million twelve thousand eight hundred and thirty-one pounds two shillings and eight pence halfpenny, as following account shows;—and notwithstanding this vast expense the king has not received any quit-rents from these provinces. How different is the present proposition, for the establishment of the colony?—In case, the crown is paid lands, (and which is the first instance) may being sold in America) Government is to be exempted from the expense of supporting the colony, and the king receive quit-rents, neat and clean of all deductions, (which deductions in the old colonies are at twenty per centum) as well more particularly by a of the king's quit-rents annexed hereto.

The parliamentary abovementioned	
To Nova Scotia	£707,380
To Georgia	£14,630
East Florida	45,000

and illegal titles but only agreeably to the
 "ent" usage of location? Certainly not
 that on the contrary, their lordships have
 recommended, that his majesty should be ad-
 vis'd to take every method to check the pro-
 cess of their settlements—and the rebellion
 them in their present low situation at the
 risk of involving the rule of law in a war
 to the last—regiment with a loss of sub-
 jects loss of commerce, and depopulation of
 four frontier counties.

[illegible]

In the 11th paragraph we apprehend it is
the duty to say much. The reservoir
is a good plan. It is what
the national grants and in the present
the hands of the committee of the par
council well, will be of opinion it is quite
sufficient especially if we are a little
pious to their lordship that there are no
objections within the boundaries of the
lands under consideration which hold
any other local title.

To conclude that the United States has not yet met its obligation to the people of Puerto Rico, the Commission has concluded that the United States has not yet met its obligation to the people of Puerto Rico.

[illegible]

But the object are the ...
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(1) he will be a great
 both in fact and sound reason
 in the opinion of the
 for trade and to the
 question, not all for
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 would be the
 and dangerous con
 peace and safety of
 America

We therefore hope that the
utility of erecting the L. N. S. railway
in the private colony will be
decided as a measure of
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t of the mother-country

APPENDIX, No. 1.

BY KING.

A PROCLAMATION.

GEORGE.

WHEREAS we have taken into our royal consideration, the extensive and valuable acquisitions America, secured to us by the late definitive treaty of peace, concluded at Paris the tenth of February last; and being desirous, that our loving subjects, as well of our kingdoms as of our colonies in America, should avail themselves, with convenient speed, of the great benefits and advantages which therefrom to their commerce, manufactures, and navigation; we have thought fit, with the advice of our privy council, to issue this our royal proclamation, hereby to publish and declare to all our loving subjects, that we have, with the advice of our said privy council, granted our letters patent under our great seal of Great Britain, to erect within our countries and islands, ceded and confirmed to us by the said treaty, four distinct and separate governments, styled and called by the names of Quebec, East Florida, West Florida, and Grenada, and limited and bounded as follows, viz

First, The government of Quebec, bounded on the Labrador coast by the river St. John, and from thence by a line drawn from the head of that river, through the lake St. John, to the south end of the lake Nipissim: from whence the said line, crossing the river St. Lawrence and lake Champlain in forty-five degrees of north latitude passes along the high lands, which divide the rivers that empty themselves into the said river St. Lawrence, from those which fall into the sea; and also along the north coast of the Baye des Chaleurs, and the coast of the gulf of St. Lawrence to capo Rodiers, and from thence crossing the mouth of the river St. Lawrence by the west end of the island of Anticosti, terminates at the aforesaid river St. John.

Secondly, The government of East Florida, bounded to the westward by the gulf of Mexico and the Appalachicola river, to the northward, by a line drawn from that part of the said river where the Catahouchee and Flint rivers meet, to the mouth of Mary's river, and by the course of the said river to the Atlantic Ocean; and to the east and south by the Atlantic Ocean, and the gulf of Florida, including all islands within six leagues of the sea-coast.

Thirdly, The government of West Florida, bounded to the southward by the gulf of Mexico, including all islands within six leagues of the coast from the river Appalachicola to lake Pontchartrain; to the westward by the said lake, the lake Maurepas, and the river Mississippi; to the northward, by a line drawn due east from that part of the Mississippi which lies in thirty-one degrees north latitude, to the river Appalachicola, or Catahouchee; and to the eastward by the said river.

Fourthly, The government of Grenada, comprehending the island of that name, together with the Grenadines, and the islands of Dominica, Vincent, and Tobago.

And to the end that the open and free fishery of our subjects may be extended to, and carried

on upon the coast of Labrador and adjacent islands, we have thought fit, with the advice of our said privy council, to put all our coast, from the river St. John to Hudson's Straights, together with the islands of Anticosti and Madelaine, and other smaller islands lying upon the said coast, under the inspection of our government of Newfoundland.

We have also, with the advice of our privy council, thought fit to annex the islands of St. John and Cape Breton, or Royale, with the lesser islands adjacent thereto, to our government of Nova Scotia.

We have also, with the advice of our privy council aforesaid, annexed to our province of Georgia, all the lands lying between the rivers Akamaha and Mary's.

And whereas we greatly contribute to the speedy settling and new governments, that our loving subjects may be informed of our paternal care for the security of the liberties and properties of those colonies, and become inhabitants thereof; we have thought fit to publish and declare, by this our proclamation, that we have, in the letters patent under our great seal of Great Britain, by which the governments are constituted, given express power and direction to our governors of our said colonies respectively, that so soon as the said circumstances of the said colonies will admit thereof, they shall, with the advice and consent of the members of our council, summon and call general assemblies within the said governments respectively, in such manner and form as is used, and directed in those colonies and provinces in America, which are under our immediate government; and we have also given power to the said governors, with the consent of our said councils, and the representatives of the people, to be summoned as aforesaid, to make, constitute, and ordain laws, statutes and ordinances for the public peace, welfare, and good government of our said colonies, and of the people and inhabitants thereof, as near as may be, agreeably to the laws of England, and under such regulations and restrictions as are used in other colonies: and in the mean time, and until such assemblies can be as aforesaid, all persons inhabiting in, or resorting to our said colonies, may reside in our royal protection for the enjoyment of the benefit of the laws of our realm of England: for which purpose we have given power under our great seal to the governors of our said colonies respectively, to erect and constitute, with the advice of our said councils respectively, courts of judicature and public justice within our said colonies, for the hearing and determining all causes, as well criminal as civil, according to law and equity, and as near as may be, agreeably to the laws of England; with liberty to all persons who may think themselves aggrieved by the decisions of such courts, in all civil cases, to appeal, under the usual limitations and restrictions, to us, in our privy council.

We have also thought fit, with the advice of our privy council as aforesaid, to give unto the governors and councils of our thirteen new colonies upon the continent, full power and authority to settle and agree with the inhabitants of our

said new colonies, or any other person who shall resort thereto, for such lands, tenements, and hereditaments, as are now, or hereafter shall be, in our power to dispose of, and them to grant to any such person or persons, upon such terms, and under such moderate quit-rents, services, and acknowledgments, as have been appointed and settled in other colonies, and under such other conditions as appear to us to be necessary expedient to the advantage of the grantees, and the improvement and settlement of our said colonies.

And whereas we are desirous, upon all occasions, to testify our royal sense and approbation of the conduct and bravery of the officers and soldiers of our armies, and to reward the same, we do hereby command and empower our governors of our three colonies, and other our governors of our provinces on the continent of North America, to grant, without fee or reward, to such reduced officers as have served in North America during late war, and are actually residing there, and shall personally apply to the said the following quantities of land, subject, on the expiration of ten years, to the same quit-rents as other lands are subject to in the province within which they are granted, as also subject to the same conditions of cultivation and improvement, viz.

To every person having the rank of a field-officer, five thousand acres.

To every captain, three thousand acres.

To every major or staff-officer, two thousand acres.

To every non-commissioned officer, two hundred acres.

To every private man fifty acres.

We do likewise authorize and require the governors and commanders-in-chief of all our said colonies upon the continent of North America to grant the like quantities of land, and upon the same conditions, to such reduced officers of our navy of like rank, as served on board our ships of war in North America at the times of the reduction of Louisbourg and Quebec in the late war, and who shall personally apply to our respective governors for such grants.

And whereas it is just and reasonable, and essential to our interest, and security of our colonies, that the several nations or tribes of Indians, with whom we are connected, and who live under our protection, should not be molested or disturbed in the possession of such parts of our dominions and territories as, not having been ceded to, or purchased by us, are reserved to them, or any of them, as their hunting grounds; we do therefore, with the advice of our privy council, declare it to be our royal will and pleasure, that no governor, or commander-in-chief, in any of our colonies of Quebec, East Florida, or West Florida, do presume, upon any pretence whatever, to grant warrants of survey, or pass any patents for lands beyond the bounds of their respective governments, as described in their commissions; as also no governor or commander-in-chief of our other colonies or plantations in America, do presume for the present, and until our pleasure be known, to grant warrants of survey, or pass patents for any lands beyond the heads or sources of any of the rivers which fall into the Atlantic Ocean from the west or north-west; or upon any lands whatever which not having been ceded to or purchased by us, as aforesaid, are reserved to the said Indians, or any of them.

And do we further declare it to be our royal will and pleasure, for the present, as aforesaid, to reserve under our sovereignty, protection, and dominion, for the use of the said Indians, all the land and territories included within the limits of our said three governments, or within the limits of the territory granted to the Hudson's Bay company; as also, all the land and territories lying to the westward of the said rivers which flow from the sea from the west and north-west as aforesaid; and we do hereby strictly forbid, on pain of our displeasure, all our loving subjects from making any purchases or settlements whatever, or taking possession of any of the lands above reserved, without our special leave and license for that purpose first obtained.

And we do further strictly enjoin and require all persons whatever, who have either willfully or inadvertently seated themselves upon any lands, within the countries above described, or upon any other lands, which not having been ceded to or purchased by us, are reserved to the said Indians as aforesaid, forthwith to remove themselves from such settlements.

And whereas great frauds and abuses have been committed in the purchasing lands of the Indians, to the great prejudice of our interests, and to the great dissatisfaction of the said Indians; in order therefore to prevent such irregularities for the future, and to the end that the Indians may be convinced of our justice, and determined resolution to remove all reasonable cause of discontent, we do, with the advice of our privy council, strictly enjoin and require, that no private person do presume to make any purchase from the said Indians, of any lands reserved to the Indians within those parts of our colonies where we have thought proper to allow settlement; but that if at any time any of the said Indians should be inclined to dispose of the said lands, the same shall be purchased only for us, in our name, at some public meeting or assembly of the said Indians, to be held for that purpose by the governor or commander-in-chief of our colony respectively within which they shall lie: and in case they shall within the limits of any proprietaries, conformable to such directions and instructions as we or they shall think proper to give for that purpose, and we do, by the advice of our privy council, declare and enjoin, that the trade with the said Indians shall be free and open to all our subjects whatever, provided that every person who may incline to trade with the said Indians, do take out a license for carrying on such trade, from the governor or commander-in-chief of any of our colonies respectively, where such person shall reside, and also the security to observe such regulations as we shall at any time think fit, by ourselves or commissaries, to be appointed for this purpose, to direct and appoint for the benefit of the said trade: and we do hereby authorize, enjoin, and require the governors and commanders-in-chief of all our colonies respectively, as well those under our immediate government, as those under the government and direction of proprietaries, to grant such licenses without fee or reward, taking especial care to insert therein a condition that such license shall be void, and the security forfeited in case the person to whom the same is granted, shall refuse or neglect to observe such regulations as we shall think proper to prescribe as aforesaid.

And we do further expressly enjoin and require all officers whatever, as well military as those em-

FRANKLIN'S WORKS

ployed in the management and execution of such affairs within the territories reserved as all reserved for the use of the said Indians to and apprehend all persons whatever who standing charge of treason, misprisions of treasons, murder, or other felonies must, nevertheless, shall fly from justice and take refuge in the said territory and to send them under a proper guard to the colony where their committed of which they shall stand accused, in order to take their trial for the same

Given our at James, the 7th day of October, 1753, in the third year of our reign — God save the king

APPENDIX No. II.

STATE OF THE KING'S QUIT-RENTS IN THE AMERICA

	Consideration money to be paid for the land	The time the lands are reserved from quit rent	Quit-rents received	Expense of the country in support of the civil government of the colony
Land of St. John's	None	20 years	None	
Nova Scotia	None	10 years	And yet no quit-rents have been received, though the colony was established twenty two years ago	707 10s 19 7/2
Canada	None			
Massachusetts	None	Wholly exempt from quit-rents and all payments to the crown	None	None
Connecticut	None		None	None
Rhode Island	None		None	None
New Hampshire	None		None	None
New York	None	The colony was restored to the crown in the year 1603-4, and yet from that time very little quit-rents have been received	None	None
New Jersey	None	Wholly exempt from quit-rents and all payments to the crown		None
Pennsylvania	None	This colony was resumed by the crown in the year 1696, and yet in a great number of years, the quit-rents were not paid at all — never with any regularity till within a very few years, and now from what is paid there is a deduction of at least 20 per cent	None	
Maryland	None			
Virginia	None		None	
N & S Carolina	None			
Georgia	None	This colony was settled in the year 1735, and yet no quit-rents have been received	None	214,610 3 1/2d
E & W Florida	None	10 years	None	90,900 0 0
<p>But it is proposed to pay for the colony in the Ohio</p> <p>The quit-rents to commence in twenty years from the time of the survey of each lot or plantation, and to be paid into the hands of such person as his majesty shall appoint to receive the same, nett and clear of all deductions whatsoever, for collection or otherwise</p> <p>As the expense of the civil government of this colony, to be borne and paid by the proprietors</p>				

Note on the Report.

THE preceding proposition, report, and answer are very intimately connected with the history of the revolution of America. The answer to the report, as coming from the pen of Dr. Franklin, is entitled to great credit. It contains great pains to render it clear, close, and conclusive in its reasonings; it is a triumphant argument. The variety, extent, and exactness of the information which it contains; and the foresight which it shows at so early a period the settlement, cultivation, and riches of the country; and even the building and sailing of ships on the Ohio, thence to the ocean, render these tracts highly interesting. When the answer was called up by the privy council on the 1st of July, 1772, it was heard with attention mixed with surprise; it seemed to reveal a new world; such was the impression which it made, that the prayer of the petitioners was approved.

The first news of its approval was very singular. The support of the board of trade drawn up by the president lord Hillsborough, who immediately upon the decision of the privy council, resigned his place. This minister had formed a plan of limitation for the colonies, resembling that of the French when they possessed Canada, which was to circumscribe all settlements by a line to coincide with the northern position and the Mississippi. The answer of Dr. Franklin must have rendered his lordship's want of knowledge of the geographical, physical, and historical circumstances of the American interior, very striking; and his conduct on former occasions, compared with the present, so irreconcilable with his honest and sound judgment, that his pride appears to have rendered it necessary that he should retire.

Dr. Franklin's answer had been put to press, with a view to immediate publication, but on hearing that lord Hillsborough resigned, the publication was stopt, when only five copies had been issued. The copy here published from is which Dr. Franklin himself retained.

*Comparison of Great Britain and America
in Credit, in 1777.*

In borrowing money a man's credit depends on some or all of the following particulars.

First, His known conduct respecting former loans, and his punctuality in discharging them.

Secondly, His industry.

Thirdly, His frugality.

Fourthly, The amount and the certainty of his income, and the freedom of his estate from the incumbrances of prior debts.

* This paper was written, translated, printed, and circulated, with Dr. Franklin's consent, at the court of France, for the purpose of inducing strangers to lend money to America in preference to British.

Fifthly, well founded prospects of greater future ability, by the improvement of his estate in value, and by aids from others.

Sixthly, known prudence in managing general affairs, and the advantage they probably receive from the loan which he desires.

Seventhly, known probity and honest character, and by voluntary discharge of debts, could have been legally compelled to pay. The circumstances which give an individual ought to have, they have, their weight upon the lenders of money to public bodies or nations. If then we consider and compare Britain and America, in these several particulars, upon the question, "To which is safest to lend money?" We shall find,

1. Respecting former loans, that America, which borrowed millions during the last war, for the maintenance of her army of 25,000 men and other charges, had faithfully discharged that debt, and all her other debts, in 1772. Whereas Britain, during those ten years of peace and profitable commerce, had made little or no reduction of her debt; but on the contrary, from time to time, diminished the hopes of her creditors, by a wanton diversion and misapplication of the sinking fund destined for discharging it.

2. Respecting industry; every man in America is employed; the greater part in cultivating their lands, the rest in handicrafts, navigation, and commerce. An idle man there is a rarity, idleness and idleness are disgraceful. In England the number of that character is immense, fashion has spread far and wide; hence the embarrassments of private fortunes, and daily bankruptcies arising from an universal fondness for appearance and expensive pleasures; and hence, in some degree, the mismanagement of public business; for habits of business, and ability in it, are acquired only by practice; and where universal dissipation, and perpetual pursuit of amusement are the mode, the youth, educated in it, can rarely afterwards acquire that patient attention and close application to affairs, which are so necessary to a country charged with the care of national welfare. Hence their frequent errors in policy, and hence the weariness of public councils, and backwardness in going to them, the constant unwillingness to engage in any measures that require thought and consideration, and the readiness for postponing every new proposition; which postponing is therefore the only part of business they come to be expert in, expertness produced necessarily by so much daily practice. Whereas in America, they are to close employment in their private affairs, attend with care to those of the public, when engaged in them, and nothing fails through negligence.

3. *Respecting frugality*; the manner of living in America is simple and less expensive than in England: plain tables, plain clothing, plain furniture in houses prevail, with few carriages of pleasure; there, an expensive appearance hurts credit, and is avoided: in England, it is often assumed to gain credit, and continued to ruin. *Respecting public affairs*, the difference is still greater. In England, the salaries of officers, and emoluments of office are enormous. The king has a million sterling per annum, and yet he maintains his family free of debt: secretaries of state, lords of treasury, admiralty, &c. have large appointments: an auditor of the exchequer has sixpence in the pound, or a fortieth part of all the public money expended by the nation; so that when a man costs forty millions, one million is paid to him: an inspector of the mint, the last new coinage, received as his salary one hundred sterling per annum; to all which rewards no service these gentlemen render the public is by any means equivalent. All this is paid by the people, who are oppressed by it occasionally, and thereby rendered less able to contribute to the payment of necessary national debts. In America, salaries, where indispensable, are extremely low; but much of the public business is done gratis. The honour of serving the public ably and faithfully is deemed sufficient. *Public spirit* really exists there, and has great effects. In England it is universally deemed a nonentity, and whoever pretends to it is laughed at as a fool, or suspected as a hypocrite. The committees of Congress which form the board of war, the board of treasury, the board of foreign affairs, the naval board, that for accounts, &c. all attend the business of their respective functions, without any salary or emolument whatever, though they spend in it much more of their time than any lord of treasury or admiralty in England can spare from his amusements. A minister lately computed, that the whole expense of the American government in their civil government was three millions of people amounted to but 70,000 sterling, and drew from thence the conclusion, that they ought to be taxed, until their expense was equal in proportion to that which it costs Britain to govern eight millions. He had no idea of a contrary conclusion, that if three millions may be well governed for 70,000, eight millions may be well governed for three times that sum, and therefore the expense of his own government should be diminished. In that corrupted nation no man is ashamed of being concerned in lucrative government jobs, in which the public money is egregiously misapplied and squandered, the treasury pillaged, and more numerous heavy taxes accumulated, to the great oppression of the people. But the prospect of a greater number of such jobs by

a war is an inducement with many, to cry for war upon all occasions, and to oppose every proposition of peace. Hence the constant increase of the national debt, and the absolute improbability of its ever being discharged.

4. *Respecting the income and certainty of income, and validity of security*; the whole thirteen states of America are engaged for the payment of every debt contracted by the congress, and the debt is contracted by the present Congress is the only debt they will have to pay; all or nearly all, the former debts of particular colonies being already discharged. Whereas England will have to pay only the debt this Congress must occasion, but all their preceding debt, or the rest of it,—and while America is enriching itself by prizes made upon the British commerce, more than ever it did by any commerce of its own, under the restraints of a British monopoly, the diminution of its revenues, and of course its ability to discharge the present indirect increase of its expenses.

5. *Respecting prospects of greater future ability*, Britain has none such. Her islands are circumscribed by the ocean; and excepting a few parks or forests, she has no new land to cultivate, and therefore extraneous improvements. Her numbers too, instead of increasing from increased subsistence, are continually diminishing from growing luxury. The increasing difficulties of maintaining families, which of course discourage early marriages. Thus she will have fewer people to assist in paying her debts, and that diminishing number will be poorer. America, on the contrary, has, besides her lands already cultivated, a vast territory yet to be cultivated, which, being cultivated continually hereafter, in value with the increase of people; and the people, who double themselves by a natural propagation every twenty-five years, will double yet faster, by the access of strangers, as long as lands are to be had for small families; so that every twenty years there will be a double number of inhabitants obliged to discharge the public debts; and these inhabitants, being more opulent, may pay their shares with greater ease.

6. *Respecting prudence in general affairs, and the advantages to be expected from the loan desired*; the Americans are cultivators of land; those engaged in fishery and commerce are few, compared with the others. They have conducted their several governments with wisdom, avoiding wars, and vain expensive projects, delighting only in their peaceable occupations, which must, considering the extent of their uncultivated territory, find them still for ages. Whereas England, ever unquiet, ambitious, avaricious, imprudent, and quarrelsome, is half of the time engaged in war, always at an expense infinitely greater than the advantages

to be obtained by it, if successful. Thus they made war against Spain in 1763, for a claim of about 95,000*l.* (scarce a groat for each individual of the nation) and spent forty thousand sterling war, and lives of fifty thousand men; finally made peace without obtaining satisfaction for the sum claimed. Indeed, there scarce a nation in Europe, against which she has not made some frivolous pretext or other, and thereby imprudently accumulated a debt, that has brought her on the verge of bankruptcy. But the indiscreet of all her wars, is the present against America, with whom she might, for ages, have preserved her profitable connection only by a just equitable conduct. She is acting like a shop-keeper, who, by beating those that pass his doors, attempts to make them come in and be his customers. America submit such treatment, without being first ruined, and being ruined, her will be worth nothing. England, to effect this, is increasing her debt, and irretrievably ruining herself. America, on the other hand, aims only to establish her liberty, and that freedom of commerce which will be advantageous to all Europe: and by abolishing that monopoly which she laboured under she will profit infinitely more than enough to repay any debt which she may contract to accomplish it.

7. Respecting character in honest payment of debts; the punctuality with which America has discharged her public debts was shown under the first head. And the general good disposition of the people to such punctuality has been manifested in their faithful payment of private debts to England, since the commencement of this war. There were not wanting politicians [in America,] who proposed stopping that payment, until peace should be restored, alleging, that in usual course of commerce, and of the credit given, there was always a debt existing equal to the trade of eighteen months: that the trade amounting to five millions sterling per annum, the debt must be seven millions and a half; that this sum paid to the Bri-

tish merchants would operate to prevent that distress, intended to be brought upon Britain, by our stoppage of commerce with her; the merchants receiving money, no orders with it for farther supplies, would not lay it in public funds, or in employing manufactures to accumulate goods in future hungry market in America upon an expected accommodation, by which means the funds would be kept up and the manufacturers prevented from murmuring. But against this it was alleged, that injuries from ministers should not be revenged on merchants; that the credit was in consequence of private contracts, made in confidence of good faith; that these ought to be held sacred, and faithfully complied with; for that, whatever public utility might be supposed to arise from a breach of private faith, was unjust, and in the end be found unwise—honesty being in truth the policy. On this principle the proposition was universally rejected: and though the English prosecuted the with unexampled barbarity, burning our defenceless in the midst of winter, and arming savages against us; the debt was punctually paid; and the merchants of London have testified to the parliament, and will testify to all the world, that from their experience in dealing with they had, before the war, no apprehension of our unfairness: and that since the war they have been convinced, that their good opinion of us was well founded. England, on the contrary, an old, corrupt government, extravagant, and profligate nation, sees herself deep in debt, which she is in condition to pay; and yet is madly, and dishonestly running deeper, without any possibility of discharging her debt, but by a public bankruptcy.

It appears, therefore, from the general industry, frugality, ability, prudence, and virtue of America, that she is much safer debtor than Britain;—to say nothing of the satisfaction generous minds must have in reflecting, that by loans to America they are opposing tyranny, and aiding the cause of liberty, which is the cause of all mankind.

PHILOSOPHICAL.

ESSAYS AND CORRESPONDENCE.

ELECTRICITY.

To Peter Collinson, Esq. F. R. S. London.

PHILADELPHIA, March 22, 1747.

Your kind present of an electric tube, with directions for using it, has put several of us* on making electrical experiments, in which we have observed some particular phenomena that we look upon to be new. I shall therefore communicate them to you in my next, though possibly they may be new to you, as among the numbers daily employed in those experiments on your side the water, it is probable one or other has hit on the same observations. For my own part, I was before engaged in any study that so totally engrossed my attention and time as this has lately done; for what with making experiments when I can be alone, and repeating them to my friends and acquaintance, who, from the novelty of the thing, come continually in crowds to see them, I have, during some months past, had little leisure for any thing else.—I am, &c.

B. FRANKLIN.

To the same.

Wonderful effect of points.—Positive and negative Electricity.—Electrical Kiss.—Counter-felt Spider.—Simple commodious electrical Machine.

PHILADELPHIA, July 11, 1747.

In my last I informed you that, in pursuing our electrical inquiries, we had observed some particular phenomena, which we looked upon to be new, and of which I promised to give you some account, though I apprehended they might not possibly be new to you, as so many hands are daily employed in electrical experiments on your side the water, some or other of which would probably hit on the same observations.

First is the wonderful effect of pointed bodies, both in drawing off and throwing off electrical fire. For example.

Place an iron shot of three or four inches diameter on the mouth of a clean dry glass bottle. By a fine silken thread from the ceiling, right to the mouth of the bottle, suspend a small cork-ball, about the bigness of a marble; the length of such a length, as the cork-ball may be against the side of the shot. Electrify the shot, and the ball will be repelled to the distance of four or five inches, or less, according to the quantity of electricity.—When in this state, if you present to the shot the point of a long, slender, sharp bodkin, at six or eight inches distance, the repellency is instantly destroyed, and the cork flies to the shot. The body must be brought within an inch, and draw a spark to produce the same effect. To prove that the electrical fire is drawn off by the point, if you take the blade of the bodkin out of the wooden handle, and fix it in a stick of sealing-wax, and then present it to the distance aforesaid, or if you bring it very near, no such effect follows; but sliding one finger along the wax till you touch the blade, and the ball flies to the shot immediately.—If you present the point in the dark, you will see, sometimes at a short distance and more, a light gather upon it, like that of a fire-fly, or glow worm; the less sharp the point, the nearer you must bring it to observe the light; and at whatever distance you see the light, you may draw off the electrical fire, and destroy the repellency.—If a cork ball so suspended be repelled by the tube, and a point be presented quick to it, though at a considerable distance, it is surprising to see how suddenly it flies back to the tube. Points of wood will do near as well as those of iron, provided the wood is dry; for perfectly dry wood will no conduct electricity than sealing wax.

To show that points will throw off* as well

* The Library Company of the City of Philadelphia, founded in 1730, occupies the present site made.

* The power of points to throw off fire, was first communicated to me by my ingenious friend Mr. Thomas Hopkinson, since deceased, and integrity, in every situation of life, public and private, will ever make his memory dear to those who knew him, and know how to value him.

as draw off electrical fire; lay a long sharp needle upon shot, and you cannot electrise the shot so as to make it repel cork-ball.—Or fix a needle to the end of a suspended gun-barrel, or iron-rod, so point beyond it has a little bayonet,* and while it remains there, the gun-barrel, or rod, cannot by applying the tube to the other end be electrised so as to give a spark, the fire continually running out silently at the point. In the you may see it has the same appearance as it does in the case before-mentioned.

The repellency between the cork-ball the shot is likewise destroyed. 1. By sifting the sand on it; this does it gradually. 2. By breathing on it. 3. By making a smoke it from burning wood.† 4. By candle-light, even though candle is at a short distance; these it suddenly.—The light of a bright coal from a wood fire, and light of a red hot iron do it likewise; but not at so great a distance. from dry rosin dropt on hot iron, does not destroy the repellency; but is attracted by both shot and cork ball, forming proportionable atmospheres round them, making them look beautifully, somewhat like some of the figures in Burnet's Whiston's Theory of the Earth.

V. B. This experiment should be made in a closet, where the air is very still, or it be apt to fail.

T light of the thrown strongly on both cork and shot by a looking-glass for a long time together, does not impair the repellency in the least. This difference between fire-light and sun-light, is a thing that seems new and extraordinary to us.‡

We had for some time been of opinion, that the electrical fire was not created by friction, but collected, being really an element diffused among, and attracted by other matter, particularly by water and metals. We had even discovered and demonstrated its afflux the electrical sphere, as well as its efflux, by means of little light windmill wheels made of stiff paper fixed obliquely, and turning

freely on fine wire axles. Also by little wheels of the same matter, but formed water-wheels. Of the disposition and application of which wheels, and the various phenomena resulting, I could, if I had time, fill you a sheet.* The impossibility of electrising one's self (though standing wax) by rubbing the tube, and drawing the it, and the of doing it, by passing the near a person or thing standing on the floor, &c. were referred to us some months before Watson's ingenious *Sequel* to hand, and some of the things I intended have communicated to you.—But now I only mention some particulars hinted in that piece, with reasonings thereupon: though perhaps the latter might well enough be spared.

1. A person standing on wax, and rubbing the tube, another person wax drawing the fire, they will both of them (provided they do not stand so as to touch one another) appear to be electrised, to a person standing on the floor; that is, he will perceive a spark on approaching each of them with his knuckle.

2. But if the persons on wax touch one another during the exciting of the tube, neither of them will appear to be electrised.

If they touch one another after exciting the tube, and drawing the fire as aforesaid, there be a stronger spark between them than was between either of them and the person on the floor.

4. After such strong spark, neither of them discover any electricity.

These appearances we attempt to account for thus: we suppose, aforesaid, that electrical fire is a element, of which every one of the three persons abovementioned has his equal share, before any operation is begun with the tube. A, who stands on wax, and rubs the tube, collects the electrical fire from himself into the glass; and his communication with the common stock being cut off by the wax, his body is not again immediately supplied. B, (who stands on likewise) passing his knuckle along near the tube, receives fire which was collected by the glass from A; and his communication with the common stock being likewise cut off, he retains additional quantity received.—To C, standing on the floor, both appear to be electrised: for he having only the middle quantity of electrical fire, receives a spark upon approaching B, who has over quantity; but gives one A, who has under quantity. If A and B approach to touch each other, the spark is stronger, because the between them is greater: after

* This was Mr. Hopkinson's experiment, made with an expectation of drawing a more sharp and powerful spark from the point, from a kind of focus, and was surprised to find little or none.

† We suppose every particle of sand, moisture, or smoke, being first attracted and then repelled, carries off with it a portion of the electrical fire; but that the same still subsists in these particles, till they communicate it to something else, and that it is never really destroyed. So when water is thrown on common fire, we do that the element is thereby destroyed or annihilated, but only dispersed, each particle of water carrying off in vapour its portion of the fire, which it had attracted and adhered to itself.

‡ This different effect probably did not arise from any in the light, rather from the fire being separated from the candle, being attracted and then repelled, carrying off electric matter with them; rarefying of the air between the glowing coal or iron, shot, through which electric air is readily pass.

* These experiments with wheels were made and communicated to me by my worthy ingenious friend Philip Syng; but discovered that the motion of these wheels was owing to the afflux or efflux of the electric fluid, but to the distances of attraction and repulsion.

such touch there is no spark between either of them C , because the electrical fire in all is reduced to the original equality. If they while electrising, the equality is never destroyed, fire only circulating. Hence have arisen some among us;

B , (and circumstanced) is electrised positively; A , negatively. Or ther, B is electrised plus; A , minus. And we daily in our experiments electrise bodies plus minus, as we proper.—To electrise plus minus, no more needs to be known than this, that the parts of the tube or sphere that are rubbed, do, in the instant of the friction, attract electrical fire, and therefore it from the thing rubbing: the same parts immediately, the friction upon them ceases, are disposed to give the fire they have received, to any body that loss. Thus you may circulate it, as Mr. son has shown; you may also accumulate or subtract it, upon, or from any body, as you connect that body with the rubber or with the receiver, the communication with the common stock being cut off. We think that ingenious gentleman was deceived when he imagined (in his *Neques*) that the electrical fire came down the wire from the ceiling to the gun-barrel, thence to the sphere, and elect the machine and the man turning the wheel, &c. We suppose it was driven off, and not brought on through that wire; and the machine and man, &c. were electrised minus; i. e. had less electrical in them than things in common.

As the vessel is just upon sailing, I give you so large an account of American electricity as I intended: I shall only mention a few particulars more.—We find granulated better to the phial with, than water, being easily warmed, and keeping and dry in damp air.—We fire spirits with the wire of the phial.—We light dies just blown out, by drawing a spark among the smoke between the wire and confers.—We represent lightning, by passing the wire in the dark, over a china plate that has gilt flowers, or applying it to gilt frames of looking glasses, &c.—We electrise a per- twenty or times running, with a touch of the finger wire, thus: he stands on wax; give him the electrised bottle in ; touch the wire with your finger, and then touch his hand or face; there are sparks every time.—We increase the force of the electrical vastly, thus: let A and B stand on wax; or A on wax, and B on the floor; give one of them the electrised phial in hand; let the other take hold of the wire;

there will be a small spark; but when their lips approach, they will be struck and shocked; the same if another gentleman lady, C and D , standing also on wax, and joining hands with A and B , salute or shake hands. We suspend by fine silk thread a counterfeited spider, made of a piece of cork, with legs of linen thread, and a grain or two of lead stuck in him, to give him more weight; upon the table, which he hangs, we stick a wire upright, as high as the phial and wire, four or five inches from the spider; then we animate him, by setting the electrified phial the same distance on the other of him; he will immediately fly to the wire of the phial, bend his legs in touching it, then spring off, and fly to the wire on the table, thence again to the wire of the phial, playing with his legs against both, in a very entertaining manner, appearing perfectly alive to persons unacquainted: he will continue this motion an hour or more in dry weather. We electrify, upon wax in the dark, a book that has a double line of gold round upon the covers, and then apply a knuckle to the gilding; the fire appears every where upon the gold like a flash of lightning; not upon the leather, nor, if you touch the leather instead of the gold. We rub tubes with buckskin, and observe always to keep the same side to the tube, and never to sully the tube by handling; they work readily and easily, without the least fatigue, especially if kept in tight pasteboard lined with flannel, and sitting close to the tube. This I mention, because the European papers on electricity frequently speak of rubbing the tube as a fatiguing exercise. Our spheres are on iron axes, which pass through them. At one end of the axis there is a small handle, with which you the sphere like a grindstone. This we very commodious, as the machine takes up but little room, is portable, and may be inclosed in a tight box, when in. It is true, the sphere does not turn so swift as when the great wheel is used: but swiftness think of little importance, since a few turns will charge the phial, &c. sufficiently.*

FRANKLIN.

To Peter Collinson, London.

Observations on the Leyden Bottle, with Experiments proving the different electrical States of its different Surfaces

Sept. 1, 1747

It is necessary trouble of copying long letters, perhaps, when they come your

* These cases are made here green glass, 27 or 30 long, we lay to and grasped.

† This sample easily grasped a vases of Syng's.

* By taking a spark from the wire, the electricity within the bottle is diminished: the outside of the bottle then flows from the holding it, and leaves in negative when his hand or touched, an equal quantity is restored to touching.

hands, may contain $\frac{1}{2}$ new, or worth your reading, (so quick is $\frac{1}{2}$ progress made with you in electricity) $\frac{1}{2}$ discourages me from writing any more $\frac{1}{2}$ that subject. Yet I $\frac{1}{2}$ forbear adding a few observations on M. Muschenbroek's wonderful bottle.

1. The non-electric contained in the $\frac{1}{2}$ differs, when electrised, $\frac{1}{2}$ a non-electric electrised out of $\frac{1}{2}$ bottle, in this; that the electrical fire of the latter $\frac{1}{2}$ accumulated on its surface, and forms an electrical atmosphere round it of considerable extent; but the electrical fire $\frac{1}{2}$ crowded into the substance of the former, the glass confining it.*

2. At the same time that the wire and the top of the bottle, &c. is electrised positively or plus, the bottom of the bottle is electrised negatively $\frac{1}{2}$ minus, in exact proportion; i. e. whatever quantity of electrical fire is thrown in at this $\frac{1}{2}$, an equal quantity goes out of the bottom.† To understand this, suppose the common quantity of electricity in each part of the bottle, before the operation begins, is equal to 20; and at every stroke of the tube, suppose a quantity equal to 1 is thrown in; then, after the first stroke the quantity contained in the wire and upper part of the bottle will be 21, in the bottom 19. After the second, the upper part will have 22, the lower 18, and so on, till, after 20 strokes, the upper part will have a quantity of electrical fire equal $\frac{1}{2}$ 40, the lower part none: and then the operation ends: for no more can be thrown into the upper part, when no $\frac{1}{2}$ driven out of the lower part. If you attempt to throw more in, it is spewed back through the wire, or flies out in loud cracks through the sides of the bottle.

3. The equilibrium cannot be restored in the bottle by inward communication or contact of the parts; but it must be done by a communication formed without the bottle between the top and bottom, by $\frac{1}{2}$ non-electric, touching $\frac{1}{2}$ approaching both at the $\frac{1}{2}$ time: in which $\frac{1}{2}$ it is restored with a violence and quickness inexpressible; or, touching each alternately, in which case the equilibrium is restored by degrees.

4. As no more electrical fire can be thrown into the $\frac{1}{2}$ of the bottle, when all is driven out of the bottom, $\frac{1}{2}$ in a bottle not yet electrised, none can be thrown into the top, when $\frac{1}{2}$ can get out $\frac{1}{2}$ the bottom; which happens either when the bottom $\frac{1}{2}$ too thick or when the bottle is placed $\frac{1}{2}$ an electric person. Again, when the bottle $\frac{1}{2}$ electrised, but little of the electrical fire $\frac{1}{2}$ be drawn $\frac{1}{2}$

from the top, by touching the wire, unless an equal quantity can at $\frac{1}{2}$ same time get in $\frac{1}{2}$ bottom.* Thus, place $\frac{1}{2}$ electrised bottle on clean glass or dry wax, and you will not, by touching $\frac{1}{2}$ wire, get $\frac{1}{2}$ fire $\frac{1}{2}$ the top. Place $\frac{1}{2}$ non-electric, and touch the wire, you will get it out in a short time; but soonest when you form a direct communication $\frac{1}{2}$ above.

So wonderfully are these two states of electricity, the plus and minus, combined and balanced in this miraculous bottle! situated $\frac{1}{2}$ related to each other in a manner that I can by no means comprehend! If it were possible that a bottle should in one part contain a quantity of air strongly compressed, and in another part a perfect vacuum, we know the equilibrium would be instantly restored within. But here we have a bottle containing $\frac{1}{2}$ the $\frac{1}{2}$ time a plenum of electrical fire, and a vacuum of the same fire: and yet the equilibrium $\frac{1}{2}$ be restored between them but by a communication without! though the plenum presses violently to expand, and the hungry vacuum $\frac{1}{2}$ to attract as violently in order to be filled.

5. The shock to the $\frac{1}{2}$ (or convulsion rather) is occasioned by the sudden passing of the fire through the body in its way from the top to the bottom of the bottle. The fire takes the shortest course, as Mr. Watson justly observes; but it does $\frac{1}{2}$ appear from experiment, that in order for a person to be shocked, a communication with the floor is necessary: for he that holds the bottle with $\frac{1}{2}$ hand, and touches the wire with the other, $\frac{1}{2}$ be shocked $\frac{1}{2}$ much, though his shoes be dry, or even standing on wax, as otherwise. And on the touch of the wire, (or of the gun-barrel, which is the $\frac{1}{2}$ same thing) the fire does not proceed from the touching finger to the wire, as is supposed, but from the wire $\frac{1}{2}$ the finger, and passes through the body to the other hand, and $\frac{1}{2}$ into the bottom of the bottle.

Experiments confirming the above.

$\frac{1}{2}$ 1.

Place $\frac{1}{2}$ electrised phial $\frac{1}{2}$ wax; a small cork-ball suspended by a dry silk thread held in your hand, and brought near $\frac{1}{2}$ this wire will first be attracted, and then repelled when in the state of repulsion, sink your hand, that the ball may be brought toward $\frac{1}{2}$ bottom of the bottle: it will be there instantly and strongly attracted, till it has parted with its fire.

$\frac{1}{2}$ the bottle had a positive electrical atmosphere, as well $\frac{1}{2}$ the wire, an electrified cork would be repelled from $\frac{1}{2}$ well $\frac{1}{2}$ from the other.

* See $\frac{1}{2}$ opinion rectified in $\frac{1}{2}$ 10 and $\frac{1}{2}$ of the next letter. The $\frac{1}{2}$ the $\frac{1}{2}$ was found by subsequent experiments $\frac{1}{2}$ to be $\frac{1}{2}$ in the non-electric, but in the glass. 1748

† What $\frac{1}{2}$ here, and after, of the top and bottom $\frac{1}{2}$ bottle, is true of the $\frac{1}{2}$ and outside surfaces, $\frac{1}{2}$ so expressed.

* See the preceding note, relating to $\frac{1}{2}$ $\frac{1}{2}$ circumstances being equal

EXPERIMENT II.

FIG. 1. From a bent wire (a) sticking in the bottle, let a small linen thread (b) hang down within half an inch of the electrified phial (c). Touch the wire or the phial repeatedly with your finger, and at every touch you will see the thread instantly attracted by the bottle. (This is best done by a vinegar cruet, or some such bellied-bottle.) As soon as you draw any fire from the upper part, by touching the wire, the lower part of the thread draws an equal quantity in by the thread.

EXPERIMENT III.

FIG. 2. Fix a wire (a) the lead, with which the bottom of the bottle is armed (d) so as bending upwards, the ring-end may be level with the top of the wire in the cork (e) and at three or four inches distance. Then electrify the bottle, and place it on wax. If a cork suspended by a silk thread (f) hang between these two wires, it will play incessantly from one to the other, till the bottle is no longer electrified; that is, it fetches and carries fire from the top to the bottom* of the bottle, till the equilibrium is restored.

EXPERIMENT IV.

FIG. 3. Place an electrified phial on wax; take a wire (a) in form of a C, the ends at such a distance when bent, that the upper may touch the wire of the bottle, when the lower touches the bottom: stick the outer part on a stick of sealing-wax (h), which will serve as a handle; then apply the lower end to the bottom of the bottle, and gradually bring the upper end near the wire in the cork. The consequence is, spark follows spark till the equilibrium is restored. Touch the top first, and then approaching the bottom with the other end, you have a continual stream of fire from the top entering the bottle. Touch the top and bottom together, and the equilibrium will instantly be restored, the crooked wire forming the communication.

EXPERIMENT V.

FIG. 4. Let a ring of this lead, or paper, surround the bottle (b) at some distance from or above the bottom. From that ring let a wire proceed up, and touch the wire of the cork (k). A bottle so fixed cannot by any means be electrified: the equilibrium is never destroyed: for while the communication between the upper and lower parts of the bottle is continued by the outside wire, the fire only circulates: what is driven out from the bottom, is constantly supplied from the top.† The bottle may be electrified first if dry or moist outside, if such moisture continue on the cork.

* See the note, relating to top and bottom.

† See the note, relating to top and bottom.

EXPERIMENT VI.

Place a man on a cake of wax, and present him the wire of the electrified phial to touch, you standing on the floor, and holding it in your hand. As often as he touches it, he will be electrified plus; any one standing on the floor may draw a spark from him. The fire in this experiment passes out of the wire into him; and at the same time out of your hand into the bottom of the bottle.

EXPERIMENT VII.

Give him the electrical phial to hold; and do you touch the wire; as often as you touch it he will be electrified minus, and may draw a spark from any one standing on the floor. The fire now passes from the wire to you, and from him into the bottom of the bottle.

Lay two books two glasses, back to back, two or three inches distant. Set an electrified phial on the first, and then touch the wire; that book will be electrified minus: the electrical fire being drawn out of it by the bottom of the bottle. Take off the bottle, and holding it in your hand, touch the other with the wire; that book will be electrified plus; the fire passing into it from the wire, the bottle is at the same time supplied from your hand. A suspended small cork-ball will play between these till the equilibrium is restored.

EXPERIMENT IX.

When a body is electrified plus, it will repel a positively electrified feather or small cork-ball. When minus (or when in the common state) it will attract them, but stronger when minus than when in the common state, the difference being greater.

EXPERIMENT X.

Though, as in Experiment VI, a man standing on wax may be electrified a number of times by repeatedly touching the wire of an electrified bottle (held in the hand of one standing on the floor) he receiving the fire from the wire each time; yet holding it in his own hand, and touching the wire, though he draws a strong spark, and is violently shocked, no electricity remains in him; the fire only passing through him, from the upper to the lower part of the bottle. Observe, before the shock, let some one on the floor touch him to restore equilibrium in his body; for in taking hold of the bottom of the bottle, he sometimes becomes a little electrified minus, which will continue after the shock, as would also any plus electricity, which he might have given him before the shock. For restoring the equilibrium in the bottle, does not all the electricity in the body through whom it passes;

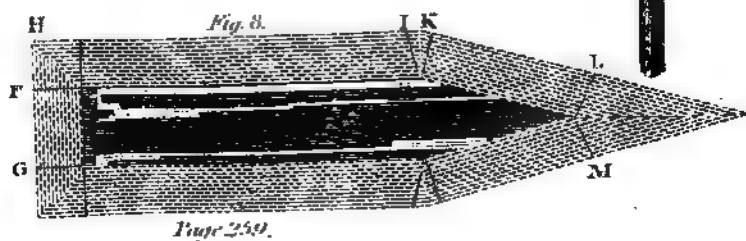
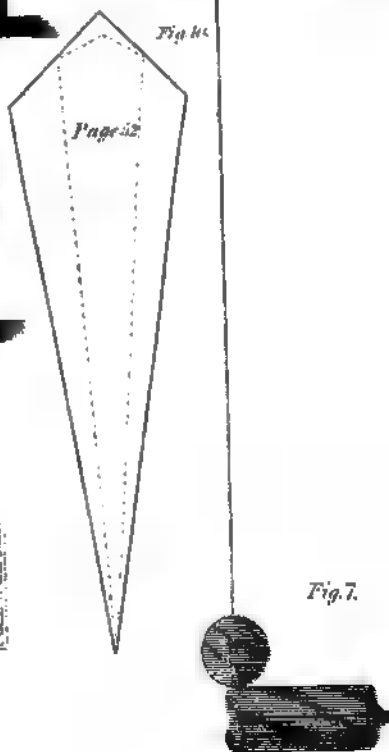
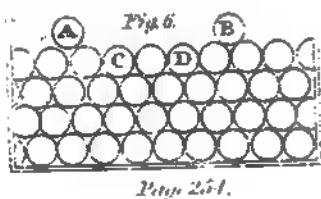
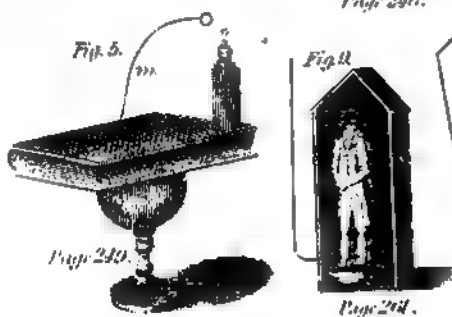
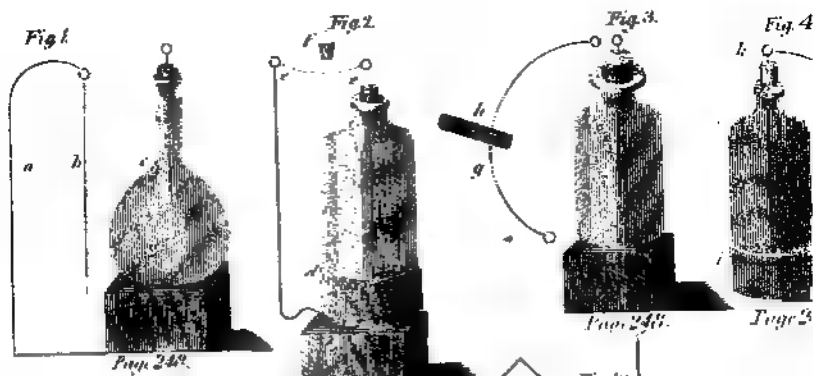


FIG. 1.

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FIG. 2.

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FIG. 3.

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FIG. 4.

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* : : From up
 † See the preced

that electricity is neither increased nor diminished

EXPERIMENT XI.

The passing of the electrical fire from the upper to the lower part* of the bottle, to restore the equilibrium, is rendered strongly manifest by the following pretty experiment. Take a glass whose covering is filletted with gold; bend a wire of eight or ten inches long, in the form of (m) Fig. 5; slip it on the end of the cover of the book, over the gold line, so as that the shoulder of it may press upon one end of the gold line, the ring up, but leaning towards the other end of the book. Lay the book on a glass or wax,† and on the other end of the gold lines set the bottle electrified; then bend the springing wire, by pressing it with a stick of wax till its ring approaches the ring of the bottle wire, instantly there is a strong spark and stroke, and the whole line of gold, which completes the communication, between the top and bottom of the bottle, will appear a vivid flame, like the sharpest lightning. The closer the contact between the shoulder of the wire, and the gold at one end of the line, and between the bottom of the bottle and the gold at the other end, the better the experiment succeeds. The glass should be darkened. If you would have the whole filletting round the cover appear in fire at once, let the bottle and wire touch the gold at the diagonally opposite corners.

B. FRANKLIN.

To Peter Collinson, London.

Further Experiments, confirming the preceding Observations.—Leyden Bottle analysed.—Electrical Battery.—Magical Picture.—Electrical Wheel.—Jask.—Electrical Feast.

PHILADELPHIA, 1746

1. THERE will be the same explosion and shock if the electrified phial is held in one hand by the hook, and the coating touched with the other, as when by the coating, and touched at the hook.

2. To take the charged phial safely by the hook, and at the same time diminish its force, it must first be set down on an electric jar.

3. The phial will be strongly, if held by the hook, and the coating applied to the globe or tube; as when held by the coating, and the hook applied.

4. But the direction of the electrical being different in the charging, is also be different in the explosion. The charge

ed through the book, will be discharged through the hook; the bottle charged through the coating, will be discharged through the coating, and not otherways; for the fire must come out the same way it went in.

5. To prove this, take two bottles that were equally charged through the hooks, one in each hand; bring their hooks near each other, and no spark or shock will follow; because each hook is disposed to give fire, and neither to receive it. Set one of the bottles down on glass, take it up by the hook, and apply its coating to the hook of the other; then there will be an explosion and shock, and both bottles will be discharged.

6. Vary the experiment, by charging two phials equally, one through the hook, the other through the coating; by the coating which was charged through the hook, and that by the hook which was charged through the coating: apply the hook of the first to the coating of the other, and there will be no shock or spark. Set that down on glass which you held by the hook, take it up by the coating, and bring the two hooks together: a spark and shock will follow, and both phials be discharged.

In this experiment the bottles are totally restored, or the equilibrium within them restored. The bounding of fire in one of the hooks (or rather in the internal surface of one) being exactly equal to the wanting of the other; and therefore as each bottle has its bounding as well as the wanting, the wanting and bounding must be equal in each bottle. § 8, 9, 10, 11. But if a man holds in his hands two bottles, one fully electrified, the other not at all, and brings their hooks together, he has but half a shock, the bottles will both remain half electrified, the one being half discharged, and the other half charged.

7. Place two phials equally charged on a table at five or six inches distance. Let a cork-ball, suspended by a silk thread, hang between them. If the phials were both charged through their hooks, the cork, when it has been attracted and repelled by the one, will not be attracted, but equally repelled by the other. But if the phials were charged, the one through the hook, and the other through the coating, the ball, when it is repelled from one hook, will be equally attracted by the other, and play vigorously between them, fetching the electric fluid from the one, and delivering it to the other, till both phials are nearly discharged.

8. When we use the terms of charging

* i. e. From the inside to the outside.

† Placing the book on glass or wax not necessary to produce appearance: it is only to show that the visible electricity is not brought up from the common ground.

‡ This was a discovery of the very ingenious Mr. Kiversley, and by him communicated to me.

* To charge a phial commodiously through the coating, place it on a stand; and a chain from the prime conductor to the coating, another from the hook to the wall or floor. When it is charged, remove the latter communication before you take up the bottle, otherwise the fire will escape by it.

and *discharging* the phial, it is in compliance with custom, and for want of others more suitable. Since we are of opinion that there is really no more electrical fire in the phial after what is called its *charging*, than before, nor less after its *discharging*; excepting only the small spark that might be given to, and taken from the non-electric matter, if separated from the bottle, which spark may not be equal to a five hundredth part of what is called the explosion.

For, if on the explosion, the electrical fire comes out of the bottle by one part, and did not enter in again by another, then, if a man, standing on wax, and holding the bottle in one hand, takes a spark by touching the wire hook with the other, the bottle being thereby *discharged*, the man would be *charged*: whatever fire is lost by one, would be found in the other, since there was no way for it to escape: but the contrary is true.

Besides, the phial will not suffer what is called a *charging*, unless as much fire can go out of it one way, as is thrown in by another. A phial cannot be charged standing on wax or glass, hanging on the prime conductor, unless a communication be formed between its coating and the floor.

10. But suspend two or more phials on the prime conductor, one hanging on the one of the other; and a wire from the last to the floor, an equal number of turns of the wheel shall charge them all equally, and every one as much as alone would have been. What is driven out at the tail of the first, serving to charge the second; what is driven out of the second, charging the third; and so on. By this means a great number of bottles might be charged with the same labour, and equally high, with one alone; and it is that every bottle receives the same fire, and loses its old with the same reluctance, or rather gives the same small resistance to the charging, which in a number of bottles becomes more equal to the charging power, and so repels the fire back again on the globe, sooner in proportion than a single bottle would do.

11. A bottle is charged in the common way, its inside and outside surfaces ready, the one to give fire by the hook, the other to receive it by the coating; the one full, and ready to throw out, the other empty and extremely hungry; yet as the first will give out, unless the other can at the same instant receive in; neither the latter receive in, unless the first can at the same instant give out. When both can be done at once, it is done with inconceivable quickness and violence.

12. So a straight spring (though in every particular when forcibly bent, must, of itself, contract that side which in the bending was extended, and

tracted; if either of these two operations be hindered, the other cannot be done. But the spring is not said to be charged with elasticity when bent, and discharged when unbent; its quantity of elasticity is always the same.

Glass in like manner, has, within its substance, a certain quantity of electrical fire, and that a very great quantity in proportion to the mass of glass, as will be shown hereafter.

14. This quantity, proportioned to the glass, it strongly and obstinately retains, and will have neither more nor less, though it will suffer a change to be made in its parts and situation; i. e. we may take away part of it from one of the sides, provided we throw an equal quantity into the other.

15. Yet when the situation of the electrical fire is thus altered in the glass; when some has been taken from side, and some added to the other, it will not be at rest or in its natural state, till it is restored to its original equality. And restitution cannot be made through the substance of the glass, but must be done by non-electric communication formed without, from surface to surface.

Thus, the whole force of the bottle, and power of giving a shock, is in the glass itself; the non-electrics in contact with the two surfaces, serving only to give and receive to and from the parts of the glass, that is, to give on one side, and take away from the other.

17. This was discovered here in the following manner: purposing to analyse the electrified bottle, in order to find wherein its strength lay, we placed it on glass, and drew out the wire which for that purpose had been loosely put in. Then taking the bottle in one hand, and bringing a finger of the other near its mouth, a strong spark came from the water, and the shock was violent as if the wire remained in it, which showed that the force did not lie in the wire. Then to find if it resided in the water, being crowded into and condensed in it, as confined by the glass, which had been our former opinion, we electrified the bottle again, and placing the glass, drew out the wire and cork as before; then taking the bottle, decanted all the water into an empty bottle, which likewise stood on glass; and taking up that other bottle, we expected, if the force resided in the water, to find a shock from it; but there was none. We judged then that it was either lost in decanting, or remain in the first bottle. The latter we found to be true; for that bottle on trial gave the shock, though filled up as it stood with fresh unelectrified water from a tea-pot. To find, then, whether glass has this property merely as glass, or whether the form contributed any thing to it; we took a piece of sash-glass, laying it on one hand, placed a plate of lead on its upper surface,

then electrified that plate, and bringing a finger to it, there was a spark and shock. We then took ■■■ plates of lead of equal dimensions, but less than the glass by two inches every way, and electrified the glass between them, by electrifying the uppermost lead; then separated the glass ■■■ the lead, in doing which, what little fire might be in the lead ■■■ taken out, and the glass being touched in ■■■ electrified parts with a finger, ■■■ only very small pricking sparks, but a great number of them might be taken from different places. Then dextrously placing it again between ■■■ leaden plates, and ■■■ pleting a circle between the two surfaces, a violent shock ensued; which demonstrated the power to reside in glass ■■■ glass, and that the non-electrics in contact served only, ■■■ the armature of a loadstone, ■■■ mute the force of the several parts, and bring them ■■■ any point desired: it being the property of a non-electric, that the whole body instantly receives or gives what electrical fire is given ■■■ or taken from any one of its parts.

18. Upon this ■■■ made what we called an *electrical battery*, consisting of eleven panes of large sash-glass, armed with thin leaden plates, pasted ■■■ each side, placed vertically, and supported at two inches distance on silk cords, with thick hooks of leaden wire, one from each side, standing upright, distant from each other, and convenient communications of wire and chain, from ■■■ giving side of one pane, to the receiving side of the other; that so the whole might be charged together, and with the ■■■ labour as one single pane; and another contrivance to bring the giving sides, after charging, in contact with ■■■ long wire, and the ■■■ with another, which two long wires would give the force of ■■■ the plates of glass ■■■ through the body of any animal forming the circle with them. The plates may also be discharged separately, ■■■ any number together that is required. But this machine ■■■ not much used, as not perfectly answering ■■■ intention with regard to the ease of charging, for the reason given next.

19. We made also of large glass panes, magical pictures, and self-moving animated wheels, presently to ■■■ described.

19. I perceive by the ingenious Mr. Watson's last book, lately received, that Dr. Bevis had used, before ■■■ had, panes of glass ■■■ a shock; ■■■ thought, till that book came ■■■ hand, ■■■ thought to have communicated ■■■ you as a novelty. The excuse ■■■ mentioning it here is, that we tried the experiment differently, drew different consequences from it (for Mr. ■■■ still seems to think the fire accumulated on the non-electric, that is in contact with the glass, p. 72) and, as far as we ■■■ know, have carried it farther.

20. The magical picture* is made thus: Having a large mezzotinto with a frame ■■■ glass, suppose of the King, take out the print, and cut ■■■ panel ■■■ of ■■■ two inches distant from the frame ■■■ around. If the ■■■ is through the picture ■■■ is not the worse. ■■■ thin paste, ■■■ gum water, fix the border that is cut off ■■■ the inside the glass, pressing it smooth and close; then fill up the vacancy by gilding the glass well with leaf-gold, ■■■ brass. Gild likewise the inner edge of the back of the frame all round, except the top part, and form a communication between that gilding and the gilding behind the glass; then put in the board, and that side is finished. Turn up the glass, and gild the fore-side exactly over the back gilding, and when it is dry, ■■■ it, by pasting on the panel of the picture that hath been cut out, observing to bring the corresponding parts of the border and picture together, by which the picture will appear of a piece, ■■■ at first, only part ■■■ behind the glass, and part before. Hold the picture horizontally by the top, and place a little moveable gilt ■■■ the ■■■ board. If now the picture be moderately electrified, and another person take hold of the frame with one hand, so that his fingers touch its inside gilding, ■■■ with the other hand endeavour to take off the crown, he will receive a terrible blow, and fail in the attempt. If the picture ■■■ highly charged, the consequence ■■■ might perhaps be ■■■ fatal as that of high treason, for when the spark is taken through a quire of paper laid on the picture by means of a wire communication, it makes a fur hole through every sheet, that is, through thirty-eight leaves, though a quire of paper is thought good ■■■ against the push of a sword, ■■■ even against a pistol bullet, and the crack ■■■ exceeding loud. The ■■■ actor, who holds the picture by the upper ■■■ where the inside of the frame is not gilt, to prevent its falling, feels nothing of the shock, and may touch the face of ■■■ picture without danger, which he pretends to ■■■ a test of his loyalty.—If a ring of persons take the shock among them, the experiment is called *The Conspirators*.

21. On the principle, in ser. 7, that hooks of bottles, differently charged, will attract and repel differently, ■■■ made ■■■ electrical wheel. ■■■ turns with considerable strength. A small upright shaft of wood passes at right angles through a thin round board, of about twelve inches diameter, and turns ■■■ a sharp point of iron, fixed in the lower end, while a strong wire in the upper end, passing through a small hole in a thin brass plate, keeps the ■■■ truly vertical. About thirty radii of equal length, ■■■ of sash-glass, ■■■ in ■■■ row strips, issue horizontally from the cir-

* Contrived by Mr. Kinsack.

* I have since heard that Mr. Beaton was the first who made use of panes of glass for that purpose.

■ We ■■■ also found it fatal ■■■ small animals, though not to large ■■■ The biggest ■■■ killed ■■■ a hen. 1750.

cumference of the board, the ends most distant from the centre being about four inches apart. On the end of every one a brass thimble is fixed. If now the wire of a bottle electrified in the common way, be brought near the circumference of this wheel, the thimble, being repelled, will set the wheel in motion; that thimble, in passing by, receives a spark, and thereby being electrified is repelled, so driven forwards, while a second being attracted, approaches the wire, receives a spark, and is driven after the first, and the wheel goes once round, when thimbles before electrified approaching the wire, instead of being attracted as they were first, are repelled, and the motion presently ceases.—But if another bottle, which had been charged through the coating, be placed near the wheel, its wire will attract the thimble repelled by the first, thereby double the force that carries the wheel round; and not only taking out the fire that had been communicated to the thimbles by the first bottle, but even robbing them of their natural quantity, instead of being repelled when they come again towards the first bottle, they are strongly attracted, so that the wheel mends its pace, and goes with great rapidity twelve or fifteen rounds in a minute, and with such strength, as that the weight of one hundred Spanish dollars with which we once load it, not seem in the least to retard its motion.—This is called an electrical jack; and if a large fowl were spitted on the upright shaft, it would be carried round before a fire with a motion fit for roasting.

22. But this wheel, like those driven by wind, water, or weights, by a foreign force, to wit, that of the bottles. The self-moving wheel, though constructed on the same principles, appears surprising. It is made of a thin round plate of window glass, seventeen inches diameter, well gilt on both sides, all but two inches next the edge. Two small hemispheres of wood are then fixed with cement to the top of the upper and under sides, centrally opposite, and in each of them a thick strong wire eight or ten inches long, which together make the axis of the wheel. It turns horizontally on a point at the lower end of its axis, which rests on a bit of brass cemented within a glass salt-cellar. The upper end of its axis passes through a hole in a thin brass plate cemented to a long strong piece of glass, which keeps it six or eight inches distant from any non-electric, and has a small ball of wax or metal on its top, to keep in the fire. In a circle on the table which supports the wheel, are twelve small pillars of glass, about four inches distance, with a thimble on the top of each. On the edge of the wheel is a small leaden bullet, communicating by a wire with the gilding of the upper

surface of the wheel; six inches from it is another bullet, communicating in like manner with the under surface. When the wheel is to be charged by the upper surface, a communication is made from the under surface to the thimble. When it is well charged it begins to move; the bullet nearest to a pillar towards the thimble that pillar, and passing by electrifies it, then pushes itself from it; the succeeding bullet, which communicates with the other surface of the glass, strongly attracts the thimble, on being before electrified by the other bullet; and thus the wheel increases its motion till it comes to such a height as that the resistance of the air regulates it. It will go half an hour, and make one minute with another twenty turns in a minute, which is six hundred turns in the whole; the bullet of the upper surface giving in each turn twelve sparks to the thimbles, which makes seven thousand two hundred sparks; and the bullet of the under surface receiving as many from the thimbles; those bullets moving in the time near two thousand five hundred feet.—The thimbles are well fixed, in so exact a circle, that the bullets may be within a very small distance of each of them.—If instead of two bullets you put eight, four communicating with the upper surface, and four with the under surface, placed alternately, with eight, about six inches distance, completes the circumference, the force and swiftness will be greatly increased, the wheel making fifty turns in a minute; but then it will not continue moving so long.—These wheels may be applied, perhaps, to the ringing of chimes,* and moving of light-machineries.

23. A small wire bent circularly, with a loop at each end; let one end rest against the under surface of the wheel, and bring the other end near the upper surface, it will give a terrible crack, and the force will be discharged.

24. Every spark in that manner drawn from the surface of the wheel, makes a round hole in the gilding, tearing off a part of it in coming out; which shows that the fire is not accumulated on the gilding, but is in the glass itself.

25. The gilding being varnished over with turpentine varnish, the varnish though dry and hard, is burnt by the spark drawn through it, and gives a strong smell and visible smoke. And when the spark is drawn through paper, all round the hole made by it, the paper will be blacked by the smoke, which sometimes penetrates several of the leaves. Part of the gilding torn off is also found forcibly driven into the hole made in the paper by the stroke. It is amazing to observe in how small

* This was afterwards done with success by Mr. Kinsey.

a portion of glass a great electrical force may lie. A thin glass bubble, about an inch diameter, weighing only six grains, being half filled with water, partly gilt the outside, and furnished with a wire hook, gives, when electrified, a great a shock as a man can well bear. As the glass is thickest near the orifice, I suppose the lower half, which being gilt was electrified and gave the shock, did not exceed two grains; for it appeared when broken, much thinner than the upper half.—If one of these thin bottles be electrified by the coating, and the spark taken out through the gilding, it will break the glass inwards, at the same time that it breaks the gilding outwards.

27. And allowing (for the same before given, § 8, 9, 10.) that there is no more electrical fire in a bottle after charging, than before, how great must be the quantity in this small portion of glass? It is as if it were of its very substance and nature. Perhaps if that due quantity of electrical fire so obstinately retained by glass, could be separated from it, it would no longer be glass; it might lose its transparency, or its brittleness, or its elasticity.—Experiments may possibly be invented hereafter, to discover this.

28. We were surprised at the account given in Mr. Watson's book, of a shock communicated through a great space of dry ground, and suspect there must be some tallness quality in the gravel of that ground: having found that simple dry earth, rammed in a glass tube, open at both ends, and a wire hook inserted in the earth at each end, the earth and wires making part of a circuit, would not conduct the least perceptible shock, and indeed when the wire was electrified, the other hardly showed any signs of its being in connexion with it.* Even a thoroughly wet packthread sometimes fails of conducting a shock, though it otherwise conducts electricity very well. A dry cake of ice, or an icicle held between two in a circle, likewise prevents the shock, which we would not expect, as water conducts it so perfectly well.—Gilding on a new book, though at first it conducts the shock extremely well, yet fails after ten or a dozen experiments, though it appears otherwise in all respects the same, which we account for.†

29. There is an experiment more which surprises us, and is not hitherto satisfactorily accounted for; it is this: place an iron shot on a glass stand, and let a ball of damp cork,

suspended by a silk thread, hang in contact with the shot. Take a bottle in each hand, one that is electrified through the hook, the other through the coating: apply the giving wire to the shot, which will electrify it positively, and the cork shall be repelled: then apply the requiring wire, which will take at the spark given by the other; when the cork will return to the shot: apply the giving wire again, and take out another spark, so will the shot be electrified negatively, and the cork in that case shall be repelled equally as before. Then apply the giving wire to the shot, and take the spark it wanted, so will the cork return: give another, which will be an additional natural quantity, so will the cork be repelled again: and so may the experiment be repeated as long as there is any charge in the bottles. Which shows that bodies, having less than the natural quantity of electricity, repel each other, as well as those that have more.

Chagrined a little that we have been hitherto unable to produce nothing in this way of use mankind: and the hot weather coming on, when electrical experiments are not so agreeable, it is proposed to put an end to them for this season, somewhat humorously, in a party of pleasure, on the banks of Schryll Hill. Spirits at the same time, are to be fired by a spark sent from side to side through the river, without any other conductor than the water: an experiment which we some time since performed, to the amazement of many.† A key is to be killed for our dinner by the electrical shock, and roasted by the electrical heat, before a fire kindled by the electrified bottle: when the healths of all the famous electricians in England, Holland, France, and Germany are to be drunk in electrified bumpers, under the discharge of sparks from the electrical battery.

* The river that was the west side of Philaelpia, as the Indians are do the east side.

† As the pre-sent of this experiment has not been exactly conceived, I shall here describe it.—Two iron rods, about three feet long, were placed just within the margin of the river on opposite sides. A thick piece of wire, with a small round knob at its end, was fixed on the top of one of the rods, bending downwards, so as to deliver continuously the spark upon the surface of the spirit. A small tin vessel by one end to the handle of the spirit, containing the spirit, was carried across the river and supported in the air by the rope commonly used to hold by drawing the ferry boats over. The other end of this wire was tied round the coating of the bottle; which being charged, the spark was delivered from the knob to the top of the rod standing in the water on the side. At the same instant the rod on the other side delivered a spark into the space, and fired the spirit electric returning to the coating of the bottle through the handle of the tin vessel and the supported tin vessel connected with them. The electric thus continually passes through the water, has since been satisfactorily demonstrated to many by an experiment of Mr. Kinnersley's, performed in a trough of water ten feet long. The hand being placed under water in the direction of the spark (which always takes place) or shortest course, if sufficient, and other equal, is struck and penetrated by it as it is.

‡ An Electrified bumper is a glass tumbler,

* Probably the ground is never so dry

* We afterwards found it failed after one stroke with a large bottle, and the continuity of the gold appearing broken, and many of its parts dissipated, the electricity could not pass the remaining parts without leaping from part to part through the air, which always resists the motion of the fluid, and was probably the cause of the gold's not conducting so well as before. the number of interruptions in the line of gold, making, together a space larger, perhaps, the striking distance.

To Peter Collinson, London.

Observations and suppositions, towards forming a new Hypothesis for explaining the Phenomena of Thunder-gusts.*

1. Non-electric bodies, that have electric fire thrown into them, will retain it till other electrics, that have less, approach; and then it is communicated by a snap, and becomes equally divided.

2. Electrical fire loves water, is strongly attracted by it, and they will subsist together.

3. Air is an electric *per se* and when dry will not conduct the electrical fire; it neither receives it, nor gives it to other bodies; otherwise no body surrounded by air, could be electrified positively and negatively: for should it be attempted positively, the air would immediately take away the overplus; or negatively, the air would supply what was wanting.

4. Water being electrified, the vapours arising from it will be equally electrified; and floating in the air, in the form of clouds, or otherwise, will retain that quantity of electrical fire, till they meet with other clouds or bodies not so much electrified, and then will communicate as before-mentioned.

5. Every particle of matter electrified is repelled by every other particle equally electrified. Thus the water of a fountain, really dense and continual, when electrified, will separate and uprear in the form of a brush, every drop endeavouring to recede from every other drop. But on taking out the electrical fire they close again.

6. Water being strongly electrified (as well as when heated by common fire) rises in vapour more copiously: the attraction of cohesion among its particles being greatly weakened, by the opposite power of repulsion introduced with the electrical fire: and when any particle is by any means disengaged, it is immediately repelled, and flies into the air.

7. Particles happening to be situated in A and B. (Fig. VI. representing the profile of a vessel of water) are easily disengaged than C and D, each is held by contact with three only, whereas C and D are each in contact with nine. When the surface of the water has the least motion, particles are continually pushed into the situation represented by A and B.

8. Friction between non-electric and an electric *per se* will produce electrical fire: not by creating but collecting it; for it is equally diffused in our walls, floors, earth, and the whole mass of common matter. Thus the

nearly filled with wine and extracted in the bottle. This when brought to the lips gives a shock, if the party be close shaved, it will break on the liquor. April 1752.

* Thunder-gusts are storms of thunder and lightning, which are frequently of short duration, but sometimes produce much more effect.

whirling glass globe, during its friction against the cushion, draws fire from the cushion, the cushion is supplied from the frame of the machine, the floor on which it stands. Cut off the communication by thick glass or wax, placed under the cushion, and no fire is produced, because it cannot be collected.

9. The ocean is a compound of water, non-electric, and salt an electric *per se*.

10. When there is friction among the parts of the surface, the electrical fire is collected from the parts below. It is then plainly visible in the night; it appears in the wake of every sailing vessel; every dash of an oar shows it, and every surf and spray in the whole seems on fire.—The detached particles of water then repelled from the electrified surface, continually carry off the fire; it is collected; they rise and form clouds, and those clouds are highly electrified, and retain the fire till they have an opportunity of communicating it.

11. The particles of water, rising in vapour, attach themselves to particles of air.

12. The particles of air are said to be hard, round, separate and distant from each other; every particle strongly repelling every other particle, whereby they recede from each other, as far as common gravity will permit.

13. The space between any three particles, equally repelling each other, will be an equilateral triangle.

14. In air compressed, these triangles are smaller; in rarified air they are larger.

15. Common fire, joined with air, increases the repulsion, enlarges the triangles, and thereby makes the air specifically lighter. Such air, among denser air, will rise.

16. Common fire, as well as electrical fire, gives repulsion to the particles of water, and destroys their attraction of cohesion; hence common fire, as well as electrical fire, assists in raising clouds.

17. Particles of water, having fire in them, mutually repel each other. These particles of water then, being attached to the three particles of a triangle of air, would, by their mutual attraction operating against the air's repulsion, shorten the sides and the triangle, whereby the portion of air made denser, would sink to the earth with its matter, and not to the formation of a cloud.

18. But if every particle of water attaching itself to a particle of common fire, the repulsion of the air being assisted and strengthened by the fire, more than obstructed by the attraction of the particles of water, the triangle dilates, and that portion of air, becoming specifically lighter, rises.

19. If the particles of water bring electrical fire when they attach themselves to air, the repulsion between the particles of water

electrified, joins with the natural repulsion of the air, to force its particles to a greater distance, whereby the triangles are dilated, and the air rises, carrying up with it the water.

If the particles of water bring with them portions of the particles of fire, the repulsion of the particles of air is still strengthened and increased, the triangles farther enlarged.

21. One particle of air may be surrounded by twelve particles of water of equal size with itself, all in contact with it, and by more added to those.

22. Particles of air, thus loaded would be drawn nearer together by the mutual attraction of the particles of water, and the fire, common to electrical, assist their repulsion.

23. If air, thus loaded, be compressed by adverse winds, or by being driven against mountains, &c., or condensed by taking away the fire that assisted it in expanding, the triangles contract, the air with its water will descend and dew; or, if the water surrounding one particle of air comes in contact with the water surrounding another, they coalesce and form a drop, and we have rain.

24. The sun supplies (or seems to supply) common fire to vapours, whether raised from earth or sea.

25. Those vapours, which have both common and electrical fire in them, are both supported than those which have only common fire in them; for when vapours rise to the coldest regions above the earth, the cold will not diminish the electrical fire, if it doth the common.

26. Hence clouds, formed by vapours raised from fresh waters within land, from growing vegetables, moist earth, &c. speedily and easily deposite their water, having but little electrical fire to repel and keep the particles separate. So that the greatest part of the water raised from the land, is let fall on the land again, and winds blowing from the land to the sea are dry, there being little use for rain on the sea, and to rob the land of its moisture, in order to the sea, would not appear reasonable.

27. Clouds, formed by vapours raised from the sea, having both fires, and particularly a great quantity of the electrical, support their water strongly, are high, and being moved by winds, may bring it to the middle of the broadest continent from the middle of the widest sea.

28. Ifow these ocean clouds, so strongly supporting their water are made to deposite it on the land where it is wanted is next to be considered.

29. If they be driven by winds against mountains, those mountains being less electrified than them, and on contact take away their electrical fire (and being cold, the common fire also); hence the particles close to-

wards the mountains and towards each other. If the air is not much loaded, it only falls in dew on the tops and sides, forms springs, and descends to the vales in rivulets, which, united, make larger streams and rivers. If much loaded, the electrical fire is taken from the whole cloud, and, in leaving it, flashes brightly and cracks loudly; the particles instantly coalescing for want of that fire falling in a heavy shower.

30. When a ridge of mountains thus dams the clouds, and draws the electrical fire from the cloud first approaching it, that which next follows, when it comes near the first cloud, deprived of its fire, flashes into it, and begins to deposite its own water: the second cloud again flashing into the mountains, the third approaching cloud, and all succeeding ones, acting in the same manner as far back as they extend, which may be one hundred miles of country.

31. Hence the continual storms of thunder and lightning on the east side of the Andes, which running north and south, and being vastly high, intercept all the clouds brought against them from the Atlantic by the trade winds, and oblige them to deposite their waters, by which the vast rivers Amazon, La Platte, and Orinoko are formed, which return the water into the same sea after having fertilized a country of great extent.

32. If a country be plain, having no mountains to intercept the electrified clouds, it is not without means to make them deposite their water. For if an electrified cloud, coming from the sea, meets in the air a cloud raised from the land, and therefore not electrified, the first will flash its fire into the latter, and thereby both clouds shall be made suddenly to deposite water.

The electrified particles of the first cloud close when they lose their fire: the particles of the other clouds close in receiving it in both, they have thereby an opportunity of coalescing into drops. The concussion, which is given to the air, contributes also to shake down the water, not only from those two clouds, but from others near them. Hence the sudden fall of rain immediately after flashes of lightning.

33. To show this by an easy experiment take two round pieces of pasteboard two inches diameter; from the centre circumscribe of each of them suspend by fine silk threads eighteen inches long, seven small balls of wood, seven peas equal in goodness: will the balls appending to each pasteboard, form equal equilateral triangles, each ball being in the centre, and at equal distances from that, and from each other; and thus they prevent particles from dipping both sets in water, and some adhering to each ball, they will represent air loaded. Dextrously electrify one

set, and its balls will repel each other ■ ■ greater distance, enlarging the triangles. Can the water supported by seven ■ ■ come into contact, ■ would form a drop or drops ■ heavy as to break the cohesion it ■ with the balls, and so fall. Let the two sets then represent two clouds, the one a sea cloud electrified, the other a land cloud. Bring them within the sphere of attraction, and they will draw towards each other, and you will see the separated balls close thus; the first electrified ball that ■ ■ unelectrified ball by attraction joins it, and gives it fire; instantly they separate, and each flies to another ball of its ■ party, one to give, the other to receive fire; and ■ it proceeds through both sets, but so quick ■ to be ■ instantaneous. In the cohesion they shake off and drop their water which represents ■ ■

35. Thus when sea and land clouds would pass at two great a distance for the flash, they are attracted towards each other till within that distance: for the sphere of electrical attraction is far beyond the distance of flashing.

36. When a great number of clouds from the ■ meet a number of clouds raised from the land, the electrical flashes appear to strike in different parts: and as the clouds are jostled and mixed by the winds, or brought ■ by the electrical attraction, they continue to give and receive flash after flash, till the electrical fire is equally dissolved.

37. When the gun-barrel, (in electrical experiments) has but little electrical fire in it, you must approach it very near with your knuckle before you can draw a spark. Give it more fire, and it will give a spark at a greater distance. Two gun-barrels united, and as highly electrified, will give a spark ■ still greater distance. But if two gun-barrels electrified will strike at two inches distance, and make a loud snap, to what a great distance may 10,000 acres of electrified cloud strike and give its fire, and how loud must be that crack!

38. It ■ a ■ thing to ■ clouds ■ different heights passing different ways, which show different currents of air one under the other. As the air between the tropics ■ rarified by the sun, it rises, the denser northern and southern air pressing into its place. The ■ rarified and forced up, passes northward and southward, and must descend in the polar regions, if it has ■ opportunity before, that the circulation may be carried ■

39. As currents of ■ with the clouds therein, ■ different ways, it is easy ■ can see how the clouds, passing over each other, may attract each other, and ■ near enough for the electrical stroke. And also how electrical clouds may be carried within land very far from the sea, before they have an opportunity ■ strike.

When the air, with ■ vapours raised ■ the ocean between the tropics, can ■ descend in the polar regions and to be in contact with the vapours arising there, the electrical fire they brought begins to be communicated, and ■ seen in clear nights, being first visible where it is first in motion, that is, where the ■ begins, ■ in the ■ northern part; from thence the streams of light ■ to shoot southerly, ■ up to the zenith of northern countries. But though the light ■ to shoot from the north southerly, the progress of the fire ■ really from the south northerly, its motion beginning in the north, being the ■ that it ■ there seen first.

For the electrical fire is ■ visible but when in motion, and leaping from body to body, or from particle to particle through the air. When it passes through dense bodies it is ■ ■ When a wire makes part of the circle, in the explosion of the electrical phial, the fire, though in great quantity, passes in the wire invisibly; but ■ passing along a chain, it becomes visible ■ leap from link to link. In passing along leaf gilding it is visible: for the leaf-gold is full of pores: hold a leaf to the light and ■ appears like a net, and the fire is seen in it leaping over the vacancies.—And as when a long canal filled with still water is opened at one end, in order to be discharged, the motion of the water begins first near the opened end, and proceeds towards the close end, though the water itself moves from the close towards the opened end: so the electrical fire discharged into the polar regions, perhaps from a thousand leagues length of vapourised air, appears first where it is first in motion, i. e. in the most northern part, and the appearance proceeds southward, though the fire really moves northward. This is supposed to account for the appearance of ■ borealis.

41. When there is great heat on the ■ in a particular region (the sun having shone on it perhaps several days, while the surrounding countries have been screened by clouds, the lower air is rarified and rises, the cooler denser air above descends; the clouds in that air meet from all sides, and join over the heated place; and if some are electrified, others not, lightning and thunder succeed, and showers fall. Hence thunder-gusts after heats, and cool air after gusts; the water and the clouds that bring it, coming from a higher and therefore a cooler region.

■ An electrical spark, drawn from an irregular body ■ distance is scarcely ever straight, but shows crooked and waving in the ■ So do the flashes of lightning; the clouds being very irregular bodies.

■ As electrified clouds pass ■ a country, high hills and high trees, lofty towers, spires, ■ of ships, chimneys, &c. ■ many prominences and points, draw the elec-

trical fire, the whole cloud discharges there.

44. Dangerous, therefore, is to take shelter under a tree, during a thunder-gust. It has been fatal to many, both men and beasts.

45. It is safer to be open for another reason. When the clothes are wet, if a lightning in its way to the ground should strike your head, it may run in the water on the surface of your body; whereas, if your clothes are dry, it would go through the body, because the blood and other humours, containing so much water, are ready conductors.

Hence a wet rat cannot be killed by the exploding electrical bottle, when a dry rat may.*

46. Common fire is all bodies, more or less, as well as electrical fire. Perhaps they may be different modifications of the same element: they may be different elements. The latter is by some suspected.

47. If they are different things, yet they may and do subsist together in the same body.

48. When electrical fire strikes through a body, it acts upon the common fire contained in it, and puts that fire in motion; and if there be a sufficient quantity of each kind of fire, the body will be inflamed.

49. When the quantity of common fire in the body is small, the quantity of the electrical fire (or the electrical stroke) should be greater: if the quantity of common fire be great, less electrical fire suffices to produce the effect.

50. Thus spirits must be heated before we can fire them by the electrical spark.† If they are much heated, a small spark will do; if not, the spark must be greater.

51. Till lately we could only fire warm vapours: but now we burn hard dry resin. And when we can procure greater electrical sparks, we may be able to fire not only unheated spirits, as lightning does, but wood, by giving sufficient agitation to the common fire contained in it. We friction we know will do.

52. Sulphureous and inflammable vapours, arising from the earth, are easily kindled by lightning. Besides what arise from the earth, such vapours are sent up by stacks of rye, hay, corn, or other vegetables, which heat and rook. Wood, rotting in old trees or buildings, does the same. Such are therefore easily and often fired.

53. Metals are often melted by lightning, though perhaps not from heat in the lightning.

nor altogether from agitated fire in the metals.—For whatever body can itself between the particles of metal, and overcome the attraction by which they cohere (as sundry minerals can) will make the solid become a fluid, as well as fire, yet without heating it: so the electrical fire, by lightning, creating a violent repulsion between particles of the metal it passes through, the metal is fused.

54. If you would, by a violent fire, melt off the end of a nail, which is half driven into a door, the heat given the whole nail, before a part would melt, must burn the board it sticks in; the melted part would burn the floor it dropped on. But if a sword be melted in a scabbard, and money in a woman's pocket by lightning, without burning either, it must be a cold fusion.*

55. Lightning rends bodies. The electrical spark will strike a hole through a quire of strong paper.

56. If the source of lightning, assigned in this paper be the true one, there should be little thunder heard at sea from land. And accordingly, old sea-captains, if upon inquiry has been made, do affirm, that the fact agrees perfectly with the hypothesis, in that in crossing the great ocean, they seldom meet with thunder till they come into soundings: and that the islands far from the coast have very little of it. And a curious observer, who lived thirteen years at Bermuda, says, there was less thunder there in that whole time than he has sometimes heard in a month at Carolina.

To Peter Collinson, London.

Introductory Letter to one additional Experiment.

PHILADELPHIA July 31 1780

As you first put us on electrical experiments by sending to our Library Company a tube, with directions how to use it; and as your honourable proprietary enabled us to carry those experiments to a greater height, by his generous present of a complete electrical apparatus; we fit that both should know, from time to time, what progress we make. It was in this view I wrote and sent you my former papers on this subject, desiring, that as I had not the honour of a direct correspondence with that bountiful benefactor to our library, they might be communicated to him through your hands. In the same view I write and send you this additional paper. If it happens to bring you nothing new, (which may well be, considering the number of ingenious men in

* This was tried with a bottle, containing a quart of spirits, which was of a large glass. The bottle was broken, and the spirits were scattered about the room, though wet.

† We have seen spirits without heating when a little, poured into the palm of the hand, will be warmed sufficiently by the electrical spark. We have also seen spirits well rectified by the same fire.

* These facts, though related in several accounts, are now doubted, since it has been observed that the particles of a bell move which fill the floor, being broken into parts, are melted by lightning, did actually burn into the board. (See Philosophical Transactions, vol. 4 part 1.) Mr. Kamesley has found that a blue iron wire melted by electricity, and some other

Can be continually engaged in the same researches at least it will show, that the instruments put into hands are not neglected, and that if no valuable discoveries made by us, whatever the may be, it is not want of industry and application.—I am, sir, your much obliged humble servant,

■ FRANKLIN.

Opinions and conjectures, concerning the Properties and Effects of the electrical Matter, and the Means of preserving Buildings, Ships, &c. from Lightning, arising from Experiments and Observations made at Philadelphia, 1740.—Golden Fish.—Extraction of Effluvia by Electricity impracticable.

1 THE electrical matter consists of particles extremely subtle, since it can permeate common matter, even the densest metals, with such ease and freedom as not to receive any perceptible resistance.

2 If any one should doubt whether the electrical matter passes through the substance of bodies, or only over and along their surfaces, a shock from an electrified large glass jar, taken through his own body, will probably convince him.

3 Electrical matter differs from common matter in this, that the parts of the latter mutually attract, those of the former mutually repel each other. Hence the appearing divergence in a stream of electrified effluvia.

4 But though the particles of electrical matter do repel each other, they are strongly attracted by all other matter.*

5 From these three things, the extreme subtilty of the electrical matter, the mutual repulsion of its parts, and the strong attraction between them and other matter, arises this effect, that, when a quantity of electrical matter is applied to a piece of common matter, of any figure or length, within our observation (which hath not already got its quantity) it is immediately and equally diffused through the whole.

6 Thus, common matter is a kind of sponge to the electrical fluid. And as a sponge would receive no water, if the parts of water were not smaller than the pores of the sponge; and even then but slowly, if there were not a mutual attraction between those parts and the parts of the sponge; and would still imbibe faster, if the mutual attraction among the parts of the sponge were not impeded, force being required to separate them; and fastest, if, instead of attraction, there were a mutual repulsion among those parts, which would act in conjunction with the repulsion of the sponge. so is the case between the electrical and common matter.

7. But in common matter there is (generally) as much of the electrical matter as will contain within its surface. If more is added, it lies without upon the surface, and forms what is called an electrical atmosphere; and then the body is said to be electrified.

8. It is supposed, that all kinds of common matter do not attract and retain the electricity, with equal strength and force, for reasons to be given hereafter; and that those called electrics per se, glass, &c. attract and retain the strongest, and contain the greatest quantity.

9. We know that the electrical fluid is a common matter, because we can pump it out by the globe or tube. We know common matter has no such capacity, it cannot contain, because, when we add a little more to any portion of it, the additional quantity does not enter, but forms an electrical atmosphere.—And we know that common matter has not (generally) more than it can contain, otherwise, the loose portions of it would repel each other, as they constantly do when they have electric atmospheres.

10. The beneficial uses of this electric fluid in the creation we are not yet well acquainted with, though doubtless such there are, and those very considerable. But we know the pernicious consequences that would attend a much greater proportion of it. For had this globe we live on, as much of it in proportion as we can give to a globe of wood or the like, the particles of dust and other light matter that get loose from it, would by virtue of their separate electric atmospheres, not only repel each other, but be repelled from the earth, and not easily be brought to unite with it again; whereupon we would continually be more and more clogged with foreign matter, and grow unfit for respiration. This affords another occasion for adoring that wisdom which has made all things by weight and measure.

11. If a piece of common matter be suspended entirely free from electrical matter, and a single particle of the latter be brought nigh, it will be attracted and enter the body and take place in the centre, or where the attraction is every way equal. If many particles enter, they take their places where the balance is equal between the attraction of the common matter, and their own mutual repulsion. It is supposed they form triangles, whose sides shorten as their number increases; till the common matter has drawn in so many, that the whole power of compressing those triangles by attraction, is equal to the whole power of expanding themselves by repulsion; and then will such piece of matter no longer attract.

12. When part of this natural proportion of electrical fluid is taken out of a piece of common matter, the triangles formed by the

* See ingenious Essays on Electricity, in Transactions, by Mr. Zibsch.

remainder, are supposed to be waded by the mutual repulsion of the parts, until they occupy the whole piece.

When the quantity of electrical fluid, taken from a piece of common matter, is restored again, it enters the expanded triangles, being again compressed till there is room for the whole.

14. To explain this: take two apples, or two balls of wood, each having its own natural quantity of the electrical fluid. Suspend them by silk lines from the ceiling. Apply the end of a well-charged pipe, held in your hand, to each of them (A Fig. 7.), and it will receive from the wire a quantity of the electrical fluid: but will it receive it, being already full. The fluid therefore will flow round its surface, and form an electrical atmosphere. Bring A into contact with B, and half the electrical fluid is communicated, so that each has now an electrical atmosphere, and therefore they repel each other. Take away these atmospheres, by touching the balls, and leave them in their natural state: then having fixed a stick of sealing-wax to the middle of the phial to hold it by, apply the wire to A, at the same time the coating touches B. Thus will a quantity of the electrical fluid be drawn out of B, and thrown on A. So that A will have a redundancy of this fluid, which forms an atmosphere round, and B an exactly equal deficiency. Now, bring the balls again into contact, and the electrical atmosphere will not be divided between A and B, into two smaller atmospheres as before: for B will drink up the waste atmosphere of A, and both will be found again in their natural state.

15. The form of the electrical atmosphere around the body it surrounds. This shape may be rendered visible in still air, by raising a smoke from dry dropt into a hot tea-spoon under the electrified body, which will be attracted, and spread itself equally on all sides, covering and concealing the body. And this form it takes, because it is attracted by all parts of the surface of the body, though it cannot enter the substance already replete. Without this attraction, it would not remain round the body, but disperse in the air.

16. The atmosphere of electrical particles surrounding an electrified sphere, is not more disposed to leave it, or easily drawn off from any one part of the sphere than another, because it is equally attracted by every part. But that is not the case with bodies of any other figure. From a cube it is easily drawn at the corners than the plain sides, and from the angles of a body of any other form, and still most easily from the angle most acute. Thus, if a body shaped as A, B, C, D, Fig. 9. be electrified, or have

an electrical atmosphere communicated to it, and we consider every side as a base on which the particles rest, and by which they are attracted, one may see, by imagining a line from A to F, and another from E to G, that the portion of the atmosphere included in I, A, E, G, has the line A, E, for its base. So the portion of atmosphere included in H, A, B, I, has the line A, B for its base. And likewise the portion included in K, B, C, L, has B, C, to rest on; and so on the other side of the figure. Now if you would draw off this atmosphere with any blunt, smooth body, and approach the middle of the side A, you must come very near, before the force of your attractor exceeds the force or power with which that side holds its atmosphere. But there is a small portion between I, B, K, that has less of the surface to rest on, and to be attracted by, than the neighbouring portions, while at the same time there is a mutual repulsion between its particles, and the particles of those portions: therefore here you must get it with more ease. Between F, A, H, there is a larger portion that has yet a less surface to rest on, and to attract it; here, therefore, you can get it away still more easily. But of all between L, C, M, where the quantity is largest, and the surface to attract and keep it back the least. When you have drawn away one of these angular portions of the fluid another succeeds in its place, from the nature of fluidity, and the mutual repulsion before-mentioned; and the atmosphere continues flowing off at such angle, like a stream, till no more is remaining. The extremities of the portions of atmosphere over these angular parts, are likewise at a greater distance from the electrified body, as may be seen by the inspection of the above figure; the point of the atmosphere of the angle C, being much farther from C than any other part of the atmosphere over the lines C, B, A; and besides the distance from the nature of the figure, where the attraction is less, the particles will naturally expand to a greater distance by their mutual repulsion. On these accounts we suppose electrified bodies to discharge their atmospheres upon unelectric bodies more easily, and at a greater distance from their angles and points than from the smooth sides.—Those points will also discharge the air, when the body has too great an electrical atmosphere, without bringing any non-electric near, to what is thrown off: for the air, though electric per se, yet has always more less water and other non-electric matters mixed with it, and the electric and receive what is discharged.

17. But points have a property, by which they draw on, as well as throw off the electrical fluid, at greater distances than blunt bodies. That is, as the pointed part of an

electrified body will discharge the atmosphere of that body — communicate it farthest to another body. — the point of an unelectrified body will draw off the electrical atmosphere from — electrified body, farther than a blunter part of the — unelectrified body — do. Thus, a pin held by the head, and the point presented — an electrified body, will draw off its atmosphere — a foot distance; where, if the head — presented instead of the point, no such effect would follow. To understand this, we — consider, that if a person standing on the floor would draw off the electrical atmosphere from an electrified body, an iron crow and a blunt knitting-needle held alternately in his hand, and presented for that purpose, do — draw with different forces in proportion to their different masses. For the man, and what he holds in his hand, be it large or small, are connected with the — of unelectrified matter: and the force with which he draws is the same — both cases, it consisting in the different proportion of electricity in the electrified body, and that common — But the force with which the electrified body retains its atmosphere by attracting it, is proportioned to the surface over which the particles — placed; i. e. four square inches of that surface retain their atmosphere with four times the force — one square inch retains its atmosphere. — in plucking the hairs from the horse's tail, a degree of strength — sufficient to pull away a handful at once, could yet easily strip a hair by hair: so a blunt body presented — draw off a number of particles at once, but a pointed — with — greater force, takes them away easily, particle by particle.

18. These explanations of the power and operation of points, when they first occurred to me, and while they first floated in my mind, appeared perfectly satisfactory; but — I have written them, and considered them more closely, I — I have — doubts about them; yet, as I have at present nothing better to offer in their stead, I do not cross them out: for, even a — solution read, and its faults discovered, has often given rise to a good one, in the mind of an ingenious reader.

19. Nor is it of much importance to us to know the manner in which nature executes her laws; it is enough if we know the laws themselves. It is of real — know that china left in the air unsupported will fall and break; but how it comes to fall, and why it breaks, are matters of speculation. It is a pleasure indeed to know them, but — preserve — china without it.

— Thus in the present case, to know the power of points may possibly be of some — to mankind, though we should — be — to explain it. The following experiments, — well as those in my first paper, show this power. I have a large prime conductor, [

made of several — sheets of clothier's pasteboard, formed into a tube, — feet — g — a foot diameter. It is covered with Dutch embossed paper, almost totally gilt. This large metallic surface supports a much greater electrical atmosphere than a rod of iron of 100 times the weight would do. It is suspended by silk lines, and when charged will strike, — two inches distance. — pretty hard stroke, so as to make — knuckle ache. Let a person standing — the floor present the point of a needle at 12 or more inches distance from it, and while the needle is so presented, the conductor — be charged, the point drawing off the fire as fast as it — thrown on by the electrical globe. Let it be charged, and then present the point — the — distance, and it will suddenly be discharged. In the dark you may — the light on the point, when the experiment is made. And if the person holding the point stands upon wax, he will be electrified by receiving the fire at that distance. Attempt to draw off the electricity with a blunt body, as a bolt of iron round — the end, and smooth (a silversmith's iron punch, inch thick as what I use) — you must bring — within the distance of three inches before you can do it, and then it is done with a stroke and crack. As the pasteboard tube hangs loose on silk lines, when you approach — with the punch-iron, it likewise will move towards the punch, being attracted while — is charged; but if, at the — instant, a point be presented as before, it retires again, for the point discharges it. Take a pair of large brass scales, of two — more — beam, the cords of the scales being silk. Suspend the beam by a packthread from the ceiling, — that the bottom of the scales — about a foot — the floor; the scales will move round in a circle by the untwisting of the packthread. Set the iron punch on the end upon the floor, in such a place as that the scales may pass — it in making their circle, then electrify — scale, by applying the wire of a charged phial — it. As they move round, you see that scale draw nigher to the floor, and dip more when it — over the punch: — if that be placed at — proper distance, the scale will snap and discharge its fire into it — if a needle be stuck — the end of the punch, its point upwards, the scale, instead of drawing nigh to the punch, and snapping, discharges its fire silently through the point, and rises higher from the punch. Nay, even if the needle be placed upon the floor — the punch, its point upwards, the end of the punch, though so much higher than the needle, will not attract — scale and receive its fire, for the needle will get — and convey it away. — it — nigh enough — the punch to act. And — is constantly observable in these experiments, that the greater quantity of electricity on the pasteboard tube, — far-

PHILOSOPHICAL

ther it strikes ■ discharges its fire, and the point likewise will draw it off at a still greater distance.

Now if the fire of electricity and that of lightning be the same, ■ I have endeavoured ■ show ■ large, in a former paper, this pasteboard tube and these scales may represent electrified clouds. If a tube of only ten feet long will strike and discharge its fire on the punch at two ■ three inches distance, an electrified cloud of perhaps 10,000 acres may strike and discharge ■ the earth ■ a proportionally greater distance. The horizontal motion of the scales ■ the floor, may represent the motion of the clouds over the earth; and the erect iron punch, ■ hill or high building; and then we see how electrified clouds passing over hills or high buildings at too great ■ height to strike, may be attracted lower till within their striking distance. And lastly, if ■ needle fixed on the punch with its point upright, or even on the floor below the punch, will draw the fire from the scale ■ instantly at a much greater than the striking distance, and so prevent its descending towards the punch; or if in its course it won't have come high enough to strike, yet being first deprived of its fire it cannot, and the punch is thereby secured from the stroke; I say, if these things ■ so, may not the knowledge of this power of points be of use to mankind, in preserving houses, churches, ships, &c. from the stroke of lightning, by directing us to fix ■ the highest parts of these edifices, upright rods of iron made sharp as ■ needle, and gilt to prevent rusting, and from the feet of these rods a wire down the outside of the building into the ground, or down toward ■ of the shores of ■ ship, and down her side till it reaches the water? Would not these pointed rods probably draw the electrical fire silently out of a cloud before it came nigh enough to strike, and thereby secure us from that most sudden and terrible mischief?

21. To determine the question, whether the clouds that contain lightning are electrified or not, I would propose ■ experiment to be tried where it may be done conveniently. On the top of some high tower or steeple, place a kind of centry-box (as in Fig. 9) big enough to contain a ■ and ■ electrical stand. From the middle of the stand let ■ iron rod ■ and ■ bending ■ of the door, and then upright 20 or 30 feet, pointed very sharp at the end. If the electrical stand be kept clean and dry, ■ standing on it, when such clouds are passing low, might be electrified and afford sparks, the rod drawing fire to him from ■ cloud. If any danger ■ the ■ should be apprehended (though I think there would be none) let him stand on the floor of his box, and now and then bring near to the rod the loop of a wire, that has one end fastened to the leads, he holding it by ■ wax

handle; ■ the spar, if the rod is not steel, will strike from the rod to the wire, and not affect him.

22. Before I leave this subject of lightning, I may mention ■ other similarity between the effects of that, and those of electricity. Lightning has often been known to strike people blind. A pigeon that we struck dead to appearance by the electrical shock, recovering life, drooped about the yard several days, eat nothing, though crumbs were thrown to it, but declined and died. We did not think of its being deprived of sight; but afterwards a pullet, struck dead ■ like manner, being recovered by repeatedly hewing into its lungs, when set down on the floor ■ leaping against the wall. ■ examination appeared perfectly blind. Hence we concluded that the pigeon also had been absolutely blinded by the shock. The next animal we have yet killed, ■ tried to kill, with the electrical stroke, was a well-grown pullet.

23. Reading in the ingenious Dr. Milner's account of the thunder-storm at Stratford, the effect of the lightning in stripping off all the paint that had covered ■ gilt moulding of a panel of wainscot, without hurting the rest of the paint, I had a mind to lay a coat of paint over the filleting of gold on the cover of a book, and try the effects of a strong electrical flash sent through that gold from ■ charged sheet of glass. But ■ my no paint at hand I pasted a narrow strip of paper over it; ■ when dry, sent the flash through the paper, by which the paper was torn off from under the gold, with such force, that it was broke in several places, and a others brought away part of the grain of the Turkey-velvet ■ which ■ was bound, and covered one, that had been painted, the paint would have been stripped off in the same manner with that of the wainscot at Stratford.

24. Lightning melts metals, and I limited ■ my paper on that subject, that I suspected it to be ■ cold fusion; ■ do not mean a fusion by force of cold, but ■ fusion without heat. We have also melted gold, silver, and copper ■ small quantities, by the electrical flash. The ■ this: take leaf-gold, leaf-silver, or leaf-gilt copper, commonly called leaf-brass, or Dutch gold; cut off from the leaf long narrow strips, the breadth of ■ straw. Place one of these strips between two strips of smooth glass that ■ about the width of ■ finger. If one strip of gold, the leaf of the leaf, be not long enough for the glass, ■ another to the end of it. ■ that you may have a little part hanging out loose at each end of the glass. Bind the pieces of glass together from end to end with strong ■ thread; then place ■ so as to be full of ■ electrical circuit, (the ends of gold hanging out being

of use to join with the other parts of the circuit) send the through it, from a large electrified jar sheet of glass. Then if your strips of glass remain whole, you that the gold is missing in several places, and instead of a metallic stain on the glasses; the stains on the upper and under glass exactly similar in the minutest stroke, may be seen by holding them to the light; the metal appeared to have been not only melted, but even vitrified, or otherwise so driven into the pores of the glass, as to be protected by it from the action of the strong-
 aqua fortis, or aqua regia. I send you enclosed two little pieces of glass with these metallic stains upon them, which cannot be removed without taking part of the glass with them. Sometimes the stain spreads a little wider than the breadth of the leaf, and looks brighter at the edge, by inspecting closely you may observe in these. Sometimes the glass breaks to pieces: once the upper glass broke into a thousand pieces, looking like coarse salt. This piece I send you were stained with Dutch gold. True gold makes a darker stain, somewhat reddish; silver, a greenish stain. We once took two pieces of thick looking-glass, broad as a Gunter's scale, an inch six inches long; and placing leaf-gold between them, put them between two smoothly-plained pieces of wood, and fixed them tight in a bookbinder's small press; yet though they were so closely confined, the force of the electrical shock shattered the glass into many pieces. The gold was melted and stained into the glass, as usual. The circumstances of the breaking of the glass differ much in making the experiment, and sometimes it does not break at all: but is constant, that the stains in the upper and under pieces are exact counterparts of each other. And though I have taken up the pieces of glass between my fingers immediately after this melting, I never could perceive the warmth in them.

23. In one of my former papers, I mentioned, that gilding on a book, though first it communicated the shock perfectly well, yet failed after a few experiments, which we could not account for. We have since found that strong shock breaks the continuity of the gold in the filletting, and makes it look rather like dust of gold, abundance of its parts being broken and driven off; and it will seldom conduct above strong shock. Perhaps this may be the reason: when there is perfect continuity in the circuit, fire must leap over the vacancies; there is a certain distance which it is able to leap over according to its strength; if a number of vacancies, though each be very minute, taken together exceed distance, it cannot leap them, so the shock is prevented.

24. From before-mentioned law of elec-

tricity, that points they are more acute, draw and throw the with less power, at greater or distances, and larger smaller quantities in the time may see how to account for the situation of the leaf of gold suspended between two plates, the upper continually electrified, the under one person's hand standing on the floor. When the upper plate is electrified, the leaf is attracted, and raised towards it, and would fly to that plate, not for points. The that happens to be uppermost when the leaf is rising, being a sharp point, from the extreme thinness of the gold, draws and receives at a distance sufficient quantity of the electric fluid to give itself an electric atmosphere, by which its progress to the upper plate is stopped, and begins to be repelled from that plate, and would be driven back to the under plate, but that its lowest corner is likewise a point, and throws off discharges the overplus of the leaf's atmosphere, as fast as the upper corner draws it on. Were those two points perfectly equal in acuteness, the leaf would take place exactly in the middle space, for its weight is a trifle compared to the power acting on it; but it is generally the unelectrified plate, because, when the leaf is offered to the electrified plate, at a distance, the sharpest point is commonly first affected and raised towards it; so that point, from its greater acuteness, receiving the fluid faster than its opposite can discharge it at equal distances, it retires from the electrified plate, and draws nearer to the unelectrified plate, till it is to a distance where the discharge can be exactly equal to the receipt the latter being loosened, and the former increased; and there it remains long the globe continues to supply fresh electrical. This will appear plain, when the difference of acuteness in the corners is made very great. Cut a piece of Dutch gold, (which is for these experiments on account of its great strength) into the form of Fig. 10, the upper a right angle, the two next obtuse angles, and the lowest a very acute one; and bring this on your plate under the electrified plate, in such a manner as the right-angled part may be first raised (which is done by covering the acute part with the hollow of your hand) and you will see this leaf take place much to the upper than the plate; because without being cannot receive so fast at its right-angled point, as it can discharge at its acute one. Turn this leaf with the acute part uppermost, and then it takes place on the unelectrified plate; because, otherwise, it receives faster its acute point, than it can discharge at its right-angled one. Thus the difference of distance is always proportioned to the difference of acuteness. Take care in

ing your leaf, leave little ragged particles on the edges, which sometimes form points where you would have them. You may make figure below, blunt above, as need no under plate. discharging enough into air. is made narrower, the figure between pricked lines, we call it the *golden fish*, from its manner of acting. For if you take it by the tail, and hold it at a foot or greater horizontal distance from the prime conductor, it will, when let fly it with brisk but wavering motion, like that of an eel through the water; it will then place under the prime conductor, at perhaps a quarter half an inch distance, and keep a continual shaking of its tail like a fish, so that it seems animated. Turn its tail towards the prime conductor, and then your finger, and seems nibble it. And if you plate under it at six or eight inches distance, and turning the globe when the electrical atmosphere of the conductor grows small, it will descend to the plate and swim back again several times with the fish-like motion, greatly to the entertainment of spectators. By little practice in blunting or sharpening the heads or tails of these figures, you may make them take place as desired, or farther from electrified plate.

27. It is said in section 8, of this paper, that all kinds of common are supposed not to attract the electrical fluid with equal strength; and that those called electrics per se, glass, &c. attract and retain it strongest, and contain the greatest quantity. This latter position may seem a paradox to some, being contrary to the hitherto received opinion; and therefore I shall now endeavour to explain it.

28. In order to this, let it first be considered, that we cannot by any means we are yet acquainted with, the electrical fluid through glass. I know it is commonly thought that it easily pervades glass; and the experiment of a feather suspended by a thread bottle hermetically sealed, yet moved by bringing a tube near the outside of the bottle alleged to prove it. But, if the electrical fluid easily pervades glass, how does the phial become charged (as we term it) when we hold it in our hands? Would the fire, then, by the wire, pass through to our hands, and so escape into the floor? Would not the bottle in that case be left just as it is, unchanged, as we know a metal bottle so attempted to be charged would be? Indeed, if there least crack, the truest solution of continuity in the glass, though remains so tight that nothing else we know of will yet the extremely subtle electric fluid find its way through such a crack with the greatest freedom, and such a hole we know can be charged: what then

the difference between such a bottle one that is sound, this, that the fluid can pass through the one, and through the other?

is true, there is an experiment that might be apt to satisfy a light observer, that the fire, thrown into the bottle by the wire, does really pass through the glass. It is this: place the bottle on a glass stand, under the prime conductor, suspend by a chain from the prime conductor, and it comes within a quarter of an inch right over the wire of the bottle; place your knuckle on the glass stand, just the same distance from the coating of the bottle, the bulb from its wire. Now let the globe be turned, and you see a spark strike from the bulb to the wire of the bottle, and the same instant you see and feel an exactly equal spark striking from the coating your knuckle, and on spark for spark. This looks as if the fire received by the bottle again discharged from it. And yet the bottle by this means is charged!† And therefore the fire that thus leaves the bottle, though the in quantity, cannot be the very same fire that entered at the wire, for if it were, the bottle would remain uncharged.

If the fire that so leaves the bottle be not the that is thrown in through the wire, it be fire that subsisted in the bottle (that is, the glass of the bottle) before the operation began.

31. If so, there must be a great quantity of glass, because a great quantity thus discharged, even from very thin glass.

32. That this electrical fluid or fire is strongly attracted by glass, we know from the quickness and violence with which it is resumed by the part that been deprived of it, when there is an opportunity. And by this, that we cannot from a mass of glass draw a quantity of electric fire, or electrify the whole mass, we can a of metal. We cannot lessen or increase its whole quantity, the quantity it has holds; and as much as it can hold. Its pores are filled with it as full as the mutual repulsion of the particles will admit; and what is already in, refuses, or strongly repels any additional quantity. Nor have any way of moving the electrical fluid in glass, but one; that is, by covering part of the two surfaces of thin glass with non-electrics, and then throwing additional quantity of on surface, which spreading in the non-electric, and being bound by it to that surface, acts by its repelling force on particles of the electrical fluid contained the other surface, and drives them out of the glass into the non-electric on that side from whence they discharged, then

* See the first sixteen sections of the form called *Further Experiments*, &c.

† See sect. 10, of *Further Experiments*, &c.

those added on the charged side can enter. But when this is done, there is no in the glass, nor less than before, just much having it on one side as it received on the other.

33. I want of terms here, and doubt much whether I shall be able make part intelligible. By the word *surface*, in this case, I do not mean length and without thickness: but when I speak of the upper under surface of a piece of glass, the outer or surface of the *phial*, I mean length, breadth, and half the thickness, beg the favour of being so understood. Now I suppose, that glass in its first principles, and in the furnace, has no more of this electrical fluid than other matter: that when it is blown, it cools, and the particles of fire leave it. pores become a *vacuum*: that the component parts of glass extremely small and fine, I from its never showing rough face it breaks, but always polish; and from the smallness

particles I suppose the pores between them must be exceedingly small, which is the reason that *aqua fortis*, nor any other *menstruum* we have, can enter to separate them and dissolve the substance; nor is any fluid know of, fine enough to enter, except fire, and the electric fluid. Now the departing fire, leaving a vacuum, as aforesaid, between these pores, which air water are fine enough to and fill, the electric fluid (which is where ready in what we the non-electrics, and in the non-electric mixtures that are in the air) is attracted in; yet does not become fixed with the substance of the glass, but subsists there water in a porous stone, returned only by the attraction of the fixed parts, itself still and a fluid. But I suppose farther, that in the cooling of the glass, its texture becomes closest in the middle, and forms a kind of partition, in which the pores are that the particles of the electrical fluid, which enter both surfaces at the same time, cannot go through, or pass and re-pass from one surface to the other, and mix together; yet, though the particles of electric fluid, by each surface, cannot themselves pass through to those of the other, their repelleucy can, and by means they act on one another. The particles of electric fluid have mutual repelleucy, but by the power of attraction in the glass they condensed forced to each other. When the glass has received, and, by its attraction, forced closer together so much of this fluid, as that the power of attracting and condensing the one, is equal to the power of expansion in the other, it can im-bibe no more, and that remains its whole quantity; but surface would receive more, if the repelleucy of what in the opposite surface did not resist its entrance.

The quantities of this in each surface being equal, their repelling action on each other is equal; therefore those of one surface cannot drive out those of the other; but, if greater quantity is forced into surface than the glass would naturally draw in, increases the repelling power on that side, and overpowering the attraction on the other, drives out part of the fluid that had been imbibed by that surface, if there be any non-electric ready to receive it: such there is where glass is electrified to give shock. The surface that has been thus emptied, by having its electrical fluid driven out, resumes again equal quantity with violence, as the glass has opportunity to discharge quantity more than it could retain by attraction in its other face, by the additional repelleucy of which the *vacuum* had been occasioned. For experi-
ment favouring (if I may not say confirming) this hypothesis, I must, to avoid repetition, beg leave to refer back to what is said of the electrical *phial* in my former pages.

33. Let see how it will account for several other appearances.—Glass, a body extremely elastic, (and perhaps its elasticity may be owing in some degree to the subsisting of so great a quantity of this repelling fluid in its pores) must, when rubbed, have its rubbed surface somewhat stretched, or its solid parts drawn a little farther asunder, so that the vacancies in which the electrical fluid resides, become larger, affording for more of that fluid, which is immediately attracted into it from the cushion or hand rubbing, they being supplied from the common stock. But the instant the parts of the glass opened and filled, have passed the friction, they again, and force the additional quantity out upon the surface, where it must rest till that part round the cushion again, unless some non-electric (as the prime conductor,) presents to receive it.* But if the inside of the globe be lined with a non-electric, the additional repelleucy of the electrical fluid, thus collected by friction the rubbed part of the globe's outer surface, drives an equal quantity out of the inner surface into that electric lining, which receiving it, and carrying it away from the rubbed part into the common mass, through the axis of the globe, and frame of the machine, the collected electrical enter and remain in the outer surface, and of it (or very little) will be received by the prime conductor. As charged part of the globe round to

* In dark the electric may be seen the in two circles or half-moons, one on the fore the other the back part of the cushion; just where the globe cushion separate. the fore crescent the of the cushion into the glass; in the other it is leaving the glass, returning into the the the prime conductor is applied to it off the glass, the back crescent disappears.

the [] again, the [] surface [] overplus fire into the cushion, the opposite inner surface receiving at the same time an equal quantity from the floor. Every electrician knows that a globe wet within [] or [] fire, but the reason has not before been [] to be given, [] know of.

34. [] if [] tube lined with [] non-electric be rubbed* little or [] fire [] obtained from it; what is collected from [] hand, [] the downward rubbing stroke, entering the pores of the glass, and driving an equal quantity out of the [] surface into the non-electric lining: and [] in passing up to take a second stroke, takes out again what had been thrown into the outer surface, and then the [] surface receives [] again what it had given [] the non-electric lining. Thus the particles of electrical fluid belonging [] the inside surface go in and out of their pores every stroke given to [] tube. Put a wire into the tube, the inward end in contact with the non-electric lining, so it will represent the Leyden bottle. Let [] second person touch the wire, while you rub, and the fire driven out of the inward surface when you give the stroke, will pass through him into the common mass, and return through him when the inner surface resumes its quantity, and therefore this new kind of Leyden bottle cannot be so charged. But thus it may: after every stroke, before you pass your hand up to make another, let a second person apply his finger to the wire, take the spark, and then withdraw his finger; [] so on till he has drawn a number of sparks; thus will the inner surface be exhausted, and the outer surface charged; then wrap [] sheet of gilt paper close round the outer surface, and grasping it in your [] you may receive a shock by applying the finger of [] other hand to the wire: for now [] be [] pores in the inner surface resume their quantity, and the overcharged pores in the outer surface discharge that overplus; the equilibrium being restored through your body, which could not be restored through the glass.† If the tube be exhausted of air, [] non-electric lining, in contact with the wire, is not necessary, for in *vacuo* the electrical fire will fly freely from the inner surface, without a [] electric conductor; but air resists in motion; for being itself an electric *per se*, it does not attract it, having already its quantity. [] air [] draws off [] electric atmosphere from any body, but in proportion to the [] electrics mixed with it: it rather keeps such an atmosph[] confined, which, from the [] mutual repulsion of its particles, tends to dissipation, [] would immediately dissipate *in vacuo*.—And thus the experiment of the feather enclosed [] a glass vessel hermetically sealed,

but moving on the approach of the rubbed tube, [] explained. When [] additional quantity of the electrical fluid is applied [] the side of [] vessel by the atmosphere of the tube, [] quantity is repelled and driven out of the inner surface of that side into the vessel, and there affects the feather, returning again into its pores, when the tube with its atmosphere is withdrawn; not that the particles of that atmosphere [] themselves pass through the glass to the feather. And every other appearance [] have yet [] in which glass and electricity are concerned, are, I think, explained with equal ease by the same hypothesis. Yet, perhaps, it may not be a true one, and I shall be obliged to him that affords me a better.

35. Thus I take the difference between non-electrics, and glass, an electric *per se*, to [] sit in these [] particulars. 1st, That a non-electric easily [] change in the quantity of the electric fluid it contains. You may lessen its whole quantity, by drawing out a spark, which the whole body will again resume: but of glass you can only lessen the quantity contained in one of its surfaces; and not that, but by supplying [] equal quantity at the same time to the other surface: [] that the whole glass may always have the same quantity [] the two surfaces, their two different quantities being added together. And this can only be done in glass that is thin; beyond a certain thickness we have yet [] power that can make this change. And 2dly, that the electric fire freely removes from place to place, in and through the substance of a non-electric, but not so through the substance of glass. If you offer [] quantity to one end of a long rod of metal, it receives it, and when [] enters, every particle that was before in the rod pushes its neighbour quite to the further end, where the overplus is discharged; and this instantaneously where the [] part of the circle in the experiment of the shock. But glass, from the smallness of its pores, or stronger attraction of what it contains, refuses to admit [] free [] motion: a glass rod will not conduct [] shock, [] will the thinnest glass suffer any particle entering one of its surfaces to [] through [] the other.

36. Hence we [] the impossibility of [] cess in the experiments proposed, to draw out the effluvial virtues of a non-electric, [] cinnamon, for instance, and mixing them with the electric fluid, [] convey them with [] in [] the body, by including it in the globe, and then applying friction, &c. For though the effluvia of cinnamon, and the electric fluid [] mix within the globe, they would never come out together through the pores of the glass, and [] go [] the prime conductor, [] the electric fluid itself cannot [] through; and the prime conductor is always

* Gilt [] [] gilt [] the glass. []

† See *Further Experiments*, sect. 13.

supplied from the cushion, ■■■ from ■■■ floor. And besides, when the globe is filled ■■■ cinnamon, ■■■ other non-electric, non-electric fluid ■■■ be obtained from its ■■■ surface, for the ■■■ before-mentioned. I have tried another way, which I thought more likely to obtain a mixture of ■■■ electric and other effluvia together, if such a mixture had been possible. I placed a glass plate under my cushion, ■■■ cut off the communication between the cushion and floor; then brought a small chain from the cushion into a glass of oil of turpentine, ■■■ carried another chain from the oil of turpentine to the floor, taking care ■■■ chain from the cushion to the glass, touched no part of the frame of the machine. Another ■■■ fixed to the prime conductor, and ■■■ the hand of a person ■■■ be electrified. The ends of the two chains in the glass were near an inch distant from each other, ■■■ of turpentine between.—Now the globe ■■■ turned could draw ■■■ from the floor through the ■■■ chine, communication that way being cut off by the thick glass plate under the cushion: it must then draw it through the chains whose ends were dipped in the oil of turpentine. And ■■■ the oil of turpentine, being an electric *per se*, would not conduct, what came up from the floor ■■■ obliged to jump from the end of one chain to the end of the other, through the substance of that oil, which we could see in large sparks, and so it had a fair opportunity of seizing ■■■ of the finest particles of the oil in its ■■■, and carrying them off with it: but no such effect followed, ■■■ could I perceive the least difference ■■■ the smell of the electric effluvia thus collected, from what it was when collected otherwise, nor does it otherwise affect the body of a person electrified. I likewise put into a phial, instead of water, a strong purgative liquid, and then charged the phial, and took repeated shocks from it, in which ■■■ every particle of the electrical fluid must, before ■■■ went through my body, have first gone through the liquid when ■■■ phial is charging, and ■■■ turned through it when discharging, yet ■■■ other effect followed than if it had been charged with water. I have also smelt the electric fluid ■■■ drawn through gold, silver, copper, lead, iron, wood, and the human body, and could perceive no difference: the odour ■■■ always the ■■■, where ■■■ spark does not burn what it strikes; and therefore I imagine it does not take ■■■ from any quality of the bodies it passes through. And indeed, as that ■■■ so readily leaves the electric matter, ■■■ adheres to the knuckle receiving the sparks, and to other things; I suspect that it never was connected with it, but arises instantaneously ■■■ something in the air ■■■ by it. For if ■■■ was fine enough to come with the electric ■■■ through the body of

one person, why should it stop on the ■■■ of another?

■■■ I shall ■■■ have done, if I tell you all my conjectures, thoughts, and imaginations on the ■■■ and operations of this electric ■■■ and relate the variety of ■■■ experiments we have tried. I have already made this paper ■■■ long, for which I ■■■ crave pardon, not having now time to abridge it. I shall only add, that as it ■■■ been observed here that spirits will ■■■ by the electric spark in the ■■■ time, without heating them, when Fahrenheit's thermometer is above 70; ■■■ when colder, if the operator puts a ■■■ flat bottle of spirits in his bosom, or a close pocket, with the spoon, ■■■ little time before he uses them, the heat of his body will ■■■ warmth ■■■ than sufficient for the purpose.

Additional Experiments:

Proving that the Leyden Bottle has no more electrical fire in it when charged, than before nor less when discharged: that, in discharging, the Fire does not issue from the Wire and the Coating at the same time, as some have thought, but that the Coating always receives what is discharged by the Wire, or an equal quantity; the other Surface being always in a negative State of Electricity when the same Surface is in a positive state.

Place a thick plate of glass under the rubbing cushion, to cut off the communication of electrical fire from the floor to the cushion: then if there be no fine points or hairy threads sticking out from the cushion, (of which you ■■■ be careful) you ■■■ get but a few sparks from the prime conductor, which are all the cushion will part with.

Hang a phial then on the prime conductor, and it will ■■■ charge though you ■■■ it by ■■■ coating.—But,

Form a communication by a chain from ■■■ coating ■■■ the cushion, and the phial will charge.

For the globe then draws the electric fire out of the outside surface of the phial, and forces it through the prime conductor and wire of the phial into ■■■ inside surface.

Thus the bottle ■■■ charged with its own fire, no other being to be ■■■ while the glass plate is under the cushion.

Hang two cork ■■■ by flaxen threads to ■■■ prime conductor; then touch the coating of the bottle, and they will be electrified and recede from each other.

For just as much fire as you give the coating, so much is discharged through the wire upon the prime conductor, whence ■■■ cork ■■■ receive ■■■ electrical atmosphere.—But,

Take a wire bent in the form of a C, with a stick of wax fixed to the outside of the ■■■ to ■■■ it by; ■■■ apply one end of

this wire to the coating, and the other at the same time to the prime conductor, the phial will be discharged; and if the balls are not electrified before discharge, neither will they appear to be so after the discharge, for they will not repel each other.

If the phial really exploded at both ends, and discharged from the coating and wire, the balls would be more electrified, and recede farther; for none of the fire can escape, the handle preventing.

But if the fire with which the inside surface is surcharged be so much precisely as is wanted by the outside surface, it will pass round through the wire fixed to the wax handle, the equilibrium in the glass, and make no alteration in the of the prime conductor.

Accordingly we find, that if the prime conductor be electrified, the cork in a of repellency before the bottle is discharged, they continue so afterwards. If not, they are electrified by that discharge.

To Peter Collinson, London.

Accumulation of the electrical fire proved to be the electrified glass—Effect of Lightning on the Needles of Compasses, explained.—Gunpowder fired by the electric flame.

PHILADELPHIA, July 27, 1758.

MR. WATSON, I believe, wrote his Observations on my last paper on haste, without having first well considered the experiments related to 17,* which to me decisive in the question,—Whether the accumulation of the electrical fire be in the electrified glass, in the non-electric matter needed with the glass? and demonstrate that it is really in the glass.

As to the experiment that ingenious gentleman mentions, and which he thinks conclusive on the side, I persuade myself he will change his opinion of it, when he considers, that one person applying the wire of the charged bottle warm spirits, in a spoon held by another person, both standing on the floor, will spirits, and yet such firing will determine whether the accumulation in the glass or the non-electric; so the placing another person between them, standing on wax, with a basin in hand, into which the the phial poured, while at the of pouring presents a finger of his other hand to the spirits, does not at all alter the case; the stream from the phial, the side of the basin, with the arms and body of the person on the wax, being all together but as one long wire, reaching from the internal surface of the phial to the spirits.

June 29, 1751. In capt. Waddell's account of the effects of lightning on his ship, I could

* the entitled, *Further Experiments, &c.*

not but take notice of the large comazants (as he calls them) that settled on the spintles at the top-mast heads, burnt very large torches (before the stroke.) According to my opinion, the electrical was then drawn off, as by points, from the cloud; the largeness of the flame betokening the great quantity of electricity in the cloud: and had been a good wire communication from the spintle heads to the sea, that could have conducted more freely than tarred ropes, mats of turpentine wood, I imagine there would either have been no stroke, or, if a stroke, the wire have conducted it all into the sea without damage to the ship.

His compasses lost the virtue of the loadstone, or the poles were reversed; the north point turning to the south.—By electricity we have (here at Philadelphia) frequently given polarity to needles, and reversed it at pleasure. Mr. Wilson, at London, tried it on too large masses, and with too small force.

A shock from four large glass jars, sent through a fine sewing-needle, gives it polarity, and it will traverse when laid on water.—If the needle, when struck, lies and west, the end entered by the electric blast points north.—If it lies north and south, the end that lay towards the north will continue to point north when placed on water, whether the fire entered that end, at the contrary end.

The polarity given strongest when the needle is struck lying north south, weakest when lying east and west; perhaps the force was still greater, the south end, entered by the fire (when the needle lies north and south) might become the north, otherwise it puzzles us to account for the inverting of compasses by lightning; since their needles are always be found that situation, and by our little experiments, whether the blast entered the north went out the south end of the needle, the contrary, still the end that lay the north should continue to point north.

In these experiments the ends of the needles finely blued like a watch-spring by the electric flame.—This colour given by the from two jars only, will wipe off, but four jars fix it, and frequently melt the needles. I send you that have had their heads and points melted off by our mimic lightning; and a pin that had its point melted off, and part of its head and neck run. Sometimes surface on the body of the needle is also run, when examined by a magnifying glass: the jars make use of hold seven or eight gallons, are coated and lined with tin-foil; each of them takes a thousand turns a globe nine inches diameter to charge it.

* The cushion being afterwards covered with a long nap of buckram, which might cling to the globe, and

I send you two specimens of tin-foil melted between glass, by the force of two jars only.

I have not heard that any of your European electricians have been able to fire gunpowder by the electric flame. We do it here in this manner:—A small cartridge is filled with dry powder, hard rammed, so as to bruise some of the grains; two pointed wires are then thrust in, one at each end, the points approaching each other in the middle of the cartridge, till within the distance of half an inch; then, the cartridge being placed in circuit, when the four jars are discharged, the electric flame leaping from the point of one wire to the point of the other, within the cartridge annals the powder, fires it, and the explosion of the powder is the same as with the crack of the discharge.

FRANKLIN.

To Cadwallader Colden,* at New York, communicated by Mr. Collinson.

Unlimited Nature of the Electric Force

PHILADELPHIA, 1751.

I enclose you answers, such as my present hurry of business will permit me to make, to the principal queries contained in yours of the 28th instant, and beg leave to refer you to the latter piece in my printed collection of my papers, for farther explanation of the difference between what is called *electric per se*, and *non-electrica*. When you have had time to read and consider these papers, I will endeavour to make any experiments you shall propose, that you think may afford farther light or satisfaction to either of us; I shall be much obliged to you for such remarks, objections, &c. as may occur to you.—I forget whether I wrote you that I had melted brass pins and steel needles, inverted the poles of the magnetic needle, given a magnetism and polarity to needles that had none, and fired dry gunpowder by the electric spark. I have five bottles that contain eight or nine gallons each, two of which charged are sufficient for those purposes; but I charge and discharge them altogether. There are bounds (but what nature and labour give) to the force man may raise and use in the electrical way; for bottle may be added to bottle in infinitum, united and discharged together as one, the force and effect proportioned to their number and size. The greatest known effects of common lightning may, I think, without much difficulty, be explained in this way, which a few years since could not have been believed, and even now

* being taken to keep that step of a due temperature, between the dry too moist, we found so much more of the electric fluid obtained, as 150 more.—1753.

* This gentleman was the first Lieutenant-governor of New York.

may seem many a little suppose.—So we are not got beyond the will of Kabelais's devils of two years old, who, he humourously says, only learnt to thunder and lighten a little round the of a cabbage. FRANKLIN.

Queries and Answers referred to in the foregoing Letter.

The terms, *electric per se*, and *non-electric*, improper.—New relation between Metals and Water.—Effects of Air in electrical Experiments.—Experiment for discovering more of the Qualities of the electric Fluid.

Query. Whether the difference between an electric and a non-electric body?

Answer. The terms *electric per se*, and *non-electric*, were first used in distinguish bodies, on a mistaken supposition that those called *electrics per se*, alone contained electric matter in their substance, which was capable of being excited by friction, and of being produced or drawn from them, and communicated to those called *non-electrics*, supposed to be destitute of it: for the glass, &c. being rubbed, discovered signs of having it, by snapping to the finger, attracting, repelling, &c. and could communicate those signs to metals and water.—Afterwards it was found, that rubbing of glass would not produce the electric matter, unless a communication was previously between the rubber and the floor; and subsequent experiments proved that the electric matter was really drawn from those bodies at first were thought to have none of them. Then it was doubted whether glass, and other bodies called *electrics per se*, had really any electric matter in them, as they apparently afforded but what they first extracted from those which had been called *non-electrica*. But some of my experiments show, that glass contains it in great quantity, I suspect it be pretty equally diffused in all the matter of this terraqueous globe. If so, the *electric per se*, and *non-electric*, should be laid aside as improper (the only difference being this, that some will conduct electric matter, and others will not) the conductor and non-conductor may supply their place. If any portion of electric matter is applied to a piece of conducting matter, it penetrates and flows through it, or spreads equally on its surface, it will do neither. Perfect conductors of electric matter are only metals and water. Bodies conducting only they contain a mixture of those; without more or less of which they will not conduct at all. This

* This proposition is to be too. Mr. Withen has long been of the opinion that all bodies will conduct.

(by way) shows a relation between and heretofore unknown.

To this by a comparison, which, however, can only give a resemblance. Electric fluid passes through conductors as water passes through porous stone, or spreads on their surfaces; it spreads on wet stone; but when applied to non-conductors, it is like dew dropt on a greasy stone, it neither penetrates, passes through, nor spreads on the surface, but remains in drops where it falls farther on this head, in my printed piece, entitled, *Opinions and Conjectures, &c.*

Query. What are the effects of air in electrical experiments?

Answer. All I have hitherto observed are these. Moist air receives and conducts electrical fluid in proportion to its moisture, quite dry air not at all: air is therefore to be classed with the non-conductors. Dry air assists in confining the electrical atmosphere on the body it surrounds, it prevents its dissipating; for in it it quits easily, and points operate stronger, i. e. they throw off or attract the electrical matter more freely, and at greater distances: that air intervening obstructs its passage from body to body in some degree. A clean electrical phial and wire, containing air instead of water, will be charged nor give a shock, any more than if it was filled with powder of glass; but exhausted of air, it operates as well as if filled with water. Yet an electric atmosphere and air do not seem to exclude each other, for we breathe freely in such an atmosphere, and dry air will blow through it without displacing or driving it away. I question whether the strongest dry north-wester would dissipate.

I once electrified a large cork-ball at the end of a silk thread three feet long, the other end of which I held in my fingers, and whirled it round, like a sling one hundred times in the air, with the swiftest motion I could possibly give it. Yet it retained its electric atmosphere, though it had passed through eight hundred yards of air, allowing me in giving the motion to add a foot to the semi-diameter of the circle.—By quite dry air, I mean the dryest we have: for perhaps we never have any perfectly free from moisture. An electrical atmosphere raised round a thick wire, inserted in a phial of air, drives out none of the air, nor on withdrawing that atmosphere will any rush in, as I have found by a curious experiment accurately made, whence

we concluded that air's elasticity is not affected thereby.

An experiment towards discovering more of the qualities of the electrical fluid.

From a prime conductor, hang a bullet by a wire hook; under the bullet, at half an inch distance, place a bright piece of silver to receive the sparks; then let the wheel be turned, and in a few minutes, (if the repeated sparks continually strike in the same spot, the silver will receive a blue stain, nearly the colour of a watch-spring.

A bright piece of iron will also be spotted, but with that colour; it rather seems corroded.

On gold, brass, or tin, I have not perceived it makes any impression. But the spots on the silver or iron will be the same, whether the bullet be lead, brass, gold, or silver.

On a silver bullet there will also appear a small spot, as well as on the plate below it.

Cadwalader Colden, New York.

Mistake, that only Metals and Waters were conductors, rectified.—Supposition of a region of electric fire above our atmosphere.—Theoria concerning Light.—Poke-wood a cure for Cancer.—Read at the Royal Society of London. Nov. 11, 1756.

PHILADELPHIA, April 23.

In considering your favour of the 16th inst. I recollected my having wrote you answers to some queries concerning the difference between electrics per se, and non-electrics, and effects of air in electrical experiments, which, I apprehend, you may not have received. The date I have forgotten.

We have been used to call those bodies electrics per se, which would not conduct the electric fluid; we imagined that only such bodies contained that fluid; afterwards that they had some of it, and only educed it from other bodies: but further experiments showed our mistake. It is to be found in all we know of; and the distinctions of electrics per se, and non-electrics, should be dropped as improper, and that of conductors and non-conductors assumed in its place, as I mentioned in those

small part of it through the syphon. Then a little red ink was applied to the opening of the outer leg of the syphon: so that as the air within cooled, a little of the ink might rise in that leg. When the air within the bottle came to be of the same temperature of that without, the drop of red ink would rest in a certain part of the leg. But the warmth of a finger applied to the phial would cause that drop to ascend, as the least outward coolness applied would make it descend. When it had found its situation, and was at rest, the wire was electrified by a communication from the prime conductor. This was supposed to give an electric atmosphere to the wire within the bottle, which might likewise partly include and of course depress the drop of ink in the syphon: and such effect followed.

* The dry wind of North America.

† The experiment here mentioned was thus made. An empty phial stopped with cork. Through the cork passed a wire to the bottom. Through the lower part of the cork passed one leg of a syphon. The other leg of the syphon came down almost to the bottom of the phial. This phial was held in the hand, which, warming the air within, drove a

I remember any experiment by which it appeared high rectified spirit not conduct; perhaps you have made such. This I know, that wax, resin, brimstone, and even glass, commonly reputed electrics, *per se* will, when in a fluid state, conduct pretty well. Glass will do it when only red hot. that my former position, that only conductors, and other bodies more or less such as they partook of metal or moisture, general.

Your conception of the electric fluid, that it is incomparably more subtle than air, is undoubtedly just. pervades dense with the greatest ease; but it does to mix incorporate willingly with air. it does with other matter. It not quit common matter to join with air. Air obstructs, in some degree, its motion. An electric atmosphere cannot communicated at great a distance, through intervening air, as through a vacuum. Who knows then, there may as the ancients thought, a region of this fire above our atmosphere, prevented by our air, and its great distance for attraction, from joining our earth? Perhaps where the atmosphere rarest, this fluid may densest, and the earth where the atmosphere grows denser, this fluid may be rarer; yet some of it be low enough to attach itself to highest clouds, and thence they becoming electrified, may attracted by, and descend towards the earth, and discharge their watery contents, together with that ethereal fire. Perhaps the *aurora borealis* currents of this fluid in its region, above our atmosphere, becoming from their motion visible. There is no end to conjectures. As yet we but novices in this branch of natural knowledge.

You mention several differences of salts in electrical experiments. Were they all equally dry? apt to acquire moisture from air, and sorts than others. When perfectly dried by lying before a fire, or on a stove, that I have tried will conduct any better than so much glass.

New flannel, if dry and warm, will draw the electric fluid from non-electrics, well as that which has been.

I wish you the convenience of trying the experiments you seem have such expectations from, upon various of spirits, salt, earth, &c. Frequently, in a variety of experiments, though knew what we expected find, yet something valuable out, something surprising, and instructing, though unthought of.

I you communicating the illustration of the theorem concerning light. very curious. But I must own I am much in the dark about light. I am not satisfied with the doctrine that particles of matter called light continually driven off from the

sun's surface, with a swiftness so prodigious! not the particle conceivable have, with such a motion, exceeding that of a twenty-four pounder, discharged from a cannon! Must not the diminish exceedingly by such a waste of matter; and the planets, of drawing him, as some have feared, recede greater distances through lessened attraction. Yet these particles, with this amazing motion, will drive before them, remove, the least or lightest that they meet with; and the sun, for aught we know, continues of his ancient dimensions, and in their ancient orbits.

May all the phenomena of light be more conveniently solved, by supposing universal space filled with a elastic fluid, which, when at rest, is not visible, but whose vibrations affect that fine sense in the eye, as those of air do the grosser organs of the ear? We do not, in the case of sound, imagine that any sonorous particles are thrown off from a bell, for instance, and fly in straight lines the ear; why must believe that luminous particles leave the and proceed to the eye? Some diamonds, if rubbed, shine in the dark, without losing any part of their matter. I can make an electrical spark as big as the flame of a candle, much brighter, and, therefore, visible further; yet this is without fuel. I am persuaded, no part of the electric fires off in such case to distant places, but all goes directly, and is to be found in the place to which I deposite it. May not different degrees of the vibration of the above mentioned universal medium, occasion the appearance of different colours? I think the electric fluid is always the same; yet I find that weaker and stronger sparks differ in appearance colour, white, blue, purple, red, the strongest, white; weak ones, red. Thus different degrees of vibration given to the air produce the different sounds in music, analogous to the colours, yet the medium, air, is the same.

If the is not wasted by expenditure of light, I easily conceive that he shall otherwise always retain the same quantity of matter; though we should suppose him made of sulphur constantly flaming. The action of fire only separates the particles of matter, does not annihilate them. Water, by heat raised into vapour, returns to the earth in rain; and if we could collect the particles of burning matter go off in smoke, perhaps they might, with the ashes, weigh as much as body before it fired: and if we could put into the same position with regard each other, the would be the as before, and might be burnt over again. The chymists have analysed sulphur, and find it composed, in certain proportions, of oil, salt, and earth; and having, by the analysis, disco-

vered those proportions, they can, of those ingredients, make sulphur. So we have only to suppose, that the parts of the sun's sulphur, separated by fire, rise into his atmosphere, and there being freed from the immediate action of the fire, they collect into cloudy masses, and growing, by degrees, too heavy to be longer supported, they descend to the sun, and are burnt over again. Hence the spots appearing on his face, which are observed to diminish daily in size, their consuming edges being of particular brightness.

It is well we are not as poor Galileo was, subject to the inquisition for philosophical heresy. My whispers against the orthodox doctrine, in private letters, would be dangerous; but your writing and printing would be highly criminal. As it is, you must expect censure, and surely you will surely cause another.

I am heartily glad to hear more instances of the use of the poke-weed, in the cure of that horrible evil to the human body, a cancer. You will deserve highly of mankind for the communication. But I find in Boston they are at a loss to know the right plant, some asserting that it is what they call *Mehochan*, others other things. In one of their late papers it is publicly requested that a perfect description may be given of the plant, its places of growth, &c. I have mislaid the paper, and would send it to you. I thought you had described it pretty fully."

FRANKLIN.

E. Kinnersley, Boston, Benjamin Franklin.

New Experiments.—Paradoxes inferred from them.—Difference in the Electricity of a Globe of Glass charged, and a Globe of Sulphur.—Difficulty of ascertaining which is positive and which negative.

February 3, 1752.

I have the following experiments to communicate: I held in my hand a wire, which was fastened at the other end to the handle of a pump, in order to try whether the stroke from the prime conductor, through my arms, would be any greater than when conveyed

only to the surface of the earth, but could discover no difference.

I placed the needle of a compass on the point of a long pin, and holding it in the atmosphere of the prime conductor, at the distance of about three inches, found it to whirl like the flyers of a jack, with great rapidity.

I suspended with silk a cork ball, about the bigness of a pea, and presented to it rubbed amber, sealing-wax, sulphur, by each of which it was strongly repelled; then I tried rubbed glass and china, and found that each of these would attract it, it became electric again, and then it would be repelled at first; and while thus repelled by the rubbed glass or china, either of the others which rubbed would attract it. Then I electrified the ball, with the wire of a charged phial. I presented it to rubbed glass (the stopper of a decanter) and a china tea-cup, by which it was as strongly repelled by the wire; but when I presented either of the other rubbed electrica, it would be strongly attracted, and when I electrified it by one of these, it became repelled, it would be attracted by the wire of the phial, but be repelled by its meeting.

These experiments surprised me very much. I have induced me to infer the following paradoxes.

1. If a glass globe be placed one end of a prime conductor and a sulphur one at the other end, both being equally in good order, and in equal motion, not a spark of fire can be obtained from the conductor; but one globe will draw out, as fast as the other gives in.

2. If a phial be suspended to the conductor, with a chain from its coating to the table, and only one of the globes made use of at a time, 20 turns of the wheel for instance, will charge it; after which, many turns of the other wheel will discharge it; and many will charge it again.

3. The globes being in motion, each having a separate conductor, with a phial suspended on one of them, and the chain of it fastened to the other, the phial will become charged; one globe charging positively, the other negatively.

4. The phial being thus charged, hang it up like on the other conductor; set both wheels a going again, and the number of turns that charged it before, will now discharge it; and the same number repeated, will charge it again.

5. When such globe communicates with the same prime conductor, having a chain hanging from it to the table, one of them, when in motion (but which I cannot say) will draw fire up through the cushion, and discharge it through the chain; the other will draw it up through the chain, and discharge it through the cushion.

* As the poke-weed, though out of place in introduction, here, we shall insert two extracts of letters from Dr. Franklin to Dr. Keene, the translator of a collection of works, on this subject.

"London, Sept. 27, 1753.

"I apprehend that our poke-weed is what the botanists call *Physalis*. It is a plant, berries as large as peas, the berries black, but contains a crimson juice. It is this juice, which by evaporation in the sun, which was employed, is caused great pain, but some persons were said to have been cured. I am not quite sure of the facts; all that I know is, Dr. Keene had a good opinion of the remedy."

"London, April 23, 1754.

"You will see by an annexed paper by Dr. Solander, that this herb, the weed, in which has been found a specific remedy for cancer, is the common species of *Physalis*. (*Physalis decumbens* L.)"

I should be glad if you would send to my house for my sulphur globe, and the [redacted] ion belonging to it, and make the trial; but must caution you not to use chalk on [redacted] cushion, some [redacted] powdered sulphur will do better. If, as I expect, you should find the globes to charge the prime conductor differently, I hope you will be able to discover [redacted] method of determining which it [redacted] charges positively.—I [redacted] &c. **KINNERSLEY.**

Franklin to E. Kimmersley.

Probable Cause of [redacted] different Attractions and Repulsions of the [redacted] electrified Globes mentioned in the [redacted] preceding Letters.

PHILADELPHIA, [redacted] 2, 1732.

I THANK you for [redacted] experiments communicated. I sent immediately for your brimstone globe, in order to make [redacted] trials you desired, [redacted] it wanted centres, which I have [redacted] time [redacted] supply; but the first leisure I will get [redacted] fitted for use, try the experiments, and acquaint you with the result.

In the mean time I suspect, that the different attractions and repulsions you observed, proceeded rather from the greater or smaller quantities of the fire you obtained from [redacted] bodies, than from its being of a different kind, or having [redacted] different direction. In haste, **B. Franklin.**

B. Franklin to E. Kimmersley.

Reasons for supposing, that the glass Globe charges positively, and the Sulphur negatively.—Hint respecting a leather Globe for Experiments when travelling.

PHILADELPHIA, [redacted] 10, 1732.

SIR,—Having brought your brimstone globe to work, I tried one of the experiments you proposed, and [redacted] surprised [redacted] find, that the glass globe being at one end of the conductor, and the sulphur globe at the other end, both globes in motion, [redacted] spark could be obtained from the conductor, unless when [redacted] globe turned slower or [redacted] not in so good order as the other; and then [redacted] spark was only in proportion [redacted] the difference, [redacted] that turning equally, [redacted] turning that slow [redacted] which worked best, would [redacted] bring the conductor [redacted] no spark.

I found also, that the wire of a phial charged by [redacted] glass globe, attracted a cork [redacted] that [redacted] touched the wire of a phial charged by the brimstone globe, and *vice versa*, so that the cork continued to play between the two phials, just as [redacted] one phial [redacted] charged through the wire, the other through the coating, by the glass globe alone. And two phials charged, the one by the brimstone globe, the other by the glass globe, would [redacted] both discharged by bringing their wires together, and shock the person holding the phials.

From these experiments one [redacted] certain [redacted] your 2d, 3d, [redacted] proposed experiments, would succeed exactly as you [redacted] though I have [redacted] tried them, wanting time. I imagine it is the glass globe [redacted] charges positively, [redacted] sulphur negatively, for these reasons: 1. [redacted] the sulphur globe seems to work equally well with the glass one, yet [redacted] can [redacted] so large [redacted] distant a spark between [redacted] knuckle and the conductor, when the sulphur one [redacted] working, [redacted] when the glass one is used; which, I suppose, is [redacted] shown by this, that bodies of certain bigness [redacted] so easily part with a quantity of electrical fluid they have and hold attracted *within* its substance, as [redacted] can receive an additional quantity upon their surface by way of atmosphere. Therefore so much cannot be [redacted] of the conductor, as [redacted] throw on it. 2. I observe that the stream [redacted] brush of fire, appearing [redacted] the end of a [redacted] connected with the conductor, [redacted] long, large, and much diverging, when the glass globe is used, and makes a snapping (or rattling) [redacted] but when the sulphur one is used, [redacted] is short, small, and makes a hissing noise; and just the [redacted] of both happens. when [redacted] hold the same wire in your hand, and the globes are worked alternately: the brush is large, long, diverging, and snapping (or rattling) when the sulphur globe is turned; short, small, and hissing, when the glass globe is turned.—When the brush is long, large, and much diverging, the body to which it joins seems to me [redacted] be throwing the fire out; and when the contrary appears, it seems to be drinking in. 3. I observe, [redacted] when I hold my knuckle before the sulphur globe, while turning, the [redacted] of fire between my knuckle and the globe seems to spread on [redacted] surface, as if it flowed from the finger; on the glass globe it is otherwise. 4. The cool wind (or what was [redacted] so) [redacted] to feel as coming from [redacted] electrified point, is, I think, more sensible when the glass globe is used, than when the sulphur one. [redacted] these hasty thoughts, [redacted] your [redacted] paradox, [redacted] must likewise be true, if the globes [redacted] alternately worked. [redacted] if worked together, [redacted] fire will neither come up nor go down by the chain, because one globe will drink [redacted] as [redacted] the other produces it.

I [redacted] be glad [redacted] know, whether the effects would be contrary if the glass globe is solid, and the sulphur globe [redacted] hollow; but I have no means at present of trying.

In your journeys, your glass globes meet with accidents, and sulphur [redacted] are heavy and inconvenient.—Query. Would [redacted] a thin plane of brimstone, cast on a board, serve [redacted] occasion as a cushion, while a globe of leather [redacted] (properly mounted) might receive the fire from [redacted] sulphur, and charge the conductor positively! Such a globe [redacted] be

de cet [redacted] dans toutes les occasions. Coiffier a été le premier qui a fait l'expérience et l'a répétée plusieurs fois; ce n'est qu'à l'occasion de [redacted] qu'il a vu qu'il m'a envoyé prier [redacted] S'il était [redacted] d'autres témoins que de lui et de moi, vous [redacted] Coiffier pressa pour partir.

Je [redacted] avec [redacted] respectueuse considération, Monsieur, voire, et signe RALLER, *Prêtre de Marly*. 10 Mai, [redacted]

"On voit, par [redacted] détail de cette lettre, que [redacted] a fait [redacted] constate pour ne laisser [redacted] doute à ce sujet. Le porteur m'a assuré de vive voix qu'il [redacted] tire pendant près d'un quart-d'heure [redacted] que [redacted] le Prêtre arrivait, [redacted] présence de cinq [redacted] personnes, des étincelles plus fortes [redacted] plus bruyantes que celles dont [redacted] parle [redacted] la lettre. Les premières personnes arrivant successivement, n'osant approcher qu'à 10 ou 12 pas de la machine; et à cette distance, malgré [redacted] plein soleil, ils voyaient les étincelles et entendaient le bruit.

"Il résulte de toutes les expériences et observations que j'ai rapportées dans ce mémoire, et surtout de la dernière expérience faite à Marly-la-Ville, que la matière du tonnerre est incontestablement la même que celle de l'électricité. L'idée qu'en a eue M. Franklin d'être une conjecture la voilà devenue une réalité, et j'ose [redacted] que plus on approfondira tout ce qu'il a publié sur l'électricité, plus on reconnaitra combien la physique lui [redacted] redevable pour cette partie."

Letter of Mr. W. Watson, F. R. S. to the Royal Society, concerning the Electrical Experiments in England upon Thunder-boulds.—Read Dec. 1752. Trans. Vol. XIII.

AFTER the communications, which we have received from several of our correspondents in different parts of the continent, acquainting us with the [redacted] of their experiments last summer, [redacted] endeavouring to extract the electricity from the atmosphere during a thunder-storm, [redacted] consequence of Mr. Franklin's hypothesis, it may be thought extraordinary, [redacted] accounts have been yet had before you of [redacted] here from the [redacted] experiments. That [redacted] of attention, therefore, may be attributed to those here, who have been hitherto conversant [redacted] these inquiries, I thought proper [redacted] apprise you, that, though several members of the Royal Society, as well as myself, did, upon the [redacted] advices from France, prepare and set up the [redacted] apparatus for this purpose, [redacted] defeated in our expectations, from [redacted] coolness [redacted] dampness of the air here, during the whole [redacted] We had only [redacted] London one thunder-storm; [redacted] July 20; [redacted] the [redacted] accompanied with rain, so that,

by wetting the apparatus, the electricity was dissipated too soon to be perceived upon touching those parts of the apparatus, which served to conduct it. Thus, I say, in general prevented our verifying Mr. Franklin's hypothesis: but our worthy brother, Mr. Canton, was more fortunate, I take the liberty, therefore, of laying before you an extract of a letter, which I received from that gentleman, [redacted] from Spital-square, July 21, 1752.

"I had yesterday, about five in the afternoon, an opportunity of trying Mr. Franklin's experiment of extracting the electrical fire from the clouds; and succeeded, by means of a tin tube, between three and four feet in length, fixed to the top of a glass, [redacted] about eighteen inches. To the upper end of the tin tube, which was not so high as a [redacted] of chimneys [redacted] the [redacted] house, I fastened three needles with some wire; and to the lower end was soldered [redacted] cover, [redacted] kept the [redacted] from the glass tube, which [redacted] set upright [redacted] block of wood. I attended this apparatus [redacted] after the thunder began [redacted] possible, but did not find it in the least electrified, till between the third and fourth claps, when applying my knuckle to the edge of the cover, I felt and heard an electrical spark, and approaching it a second time, I received the spark at the distance of about half an inch, and [redacted] it distinctly. This I repeated four or five times [redacted] the space of a minute, but the sparks grew weaker and weaker, and in less than two minutes the tin tube did not appear to be electrified at all. The [redacted] continued during the thunder, but was considerably abated at the time of [redacted] the [redacted] permanent." Thus far Mr. Canton.

Mr. Wilson likewise of the Society, to whom [redacted] are much obliged for the trouble he has taken in these pursuits, had an opportunity of verifying Mr. Franklin's hypothesis. He informed me, by a letter from near Chelmsford, [redacted] Essex, dated August 12, 1752, that, on that day about [redacted] he perceived several electrical snaps, during, [redacted] rather at the end of a thunder-storm, from no other apparatus than [redacted] curtain rod, [redacted] end of which he put into the neck of a glass phial, and [redacted] this phial in his hand. To the other end of the [redacted] he fastened three needles with [redacted] silk. This phial, supporting the rod, he held in one hand, and drew snap from the rod with a finger of his other. This experiment was not made upon any eminence, but in [redacted] garden of a gentleman, at whose house he then [redacted]

Dr. Bevis observed, at Mr. Cave's, at St John's Gate, nearly the [redacted] phenomenon as Mr. Canton, of which an account has been already had before the public.

Trifling [redacted] the effects here mentioned are, when compared with those which we have received from Paris and Berlin, they are the

only ones, the last summer here produced; and as they were made by worthy of credit, they tend to establish the authenticity of those transmitted from our correspondents.

I flatter myself, that this short account of these matters will not be disagreeable to you; and
W. WATSON.*

Remarks on the Abbé Nollet's Letters to Benjamin Franklin, of Philadelphia, on electricity: by David Colden, of New York.

CHLDBURN, New York, Dec. 4, 1763.

In considering the Abbé Nollet's Letters to Mr. Franklin, I am obliged to pass by all the experiments which are made with, or in, bottles hermetically sealed, or exhausted of air: because, being able to repeat the experiments, I could second any thing which he says to me thereon, by experimental proof. Wherefore, the first point wherein I can dare to give my opinion, is in the Abbé's 4th letter, where he undertakes to prove, that the electric matter passes from one surface to another through the entire thickness of the glass: he takes Mr. Franklin's experiment of the magical picture, and writes thus of it: "When you electrify a piece of glass coated on both sides with metal, it is evident whatever is placed on the side opposite to that which receives the electricity from the conductor, receives also an evident electrical virtue." Which Mr. Franklin says, is that equal quantity of electric matter, driven out of this side, by what is received from the conductor on the other side; which will continue to give an electrical virtue to any thing in contact with it, till it is entirely discharged of its electrical fire. To which the Abbé thus objects: "Tell me (says he), I pray you, how much time is necessary for this pretended discharge? I can assure you, that after having maintained the electrification for hours, this surface, which ought, as it seems to me, to be entirely discharged of its electrical matter, considering either the vast number of sparks that are drawn from it, or the time that this matter has been exposed to the action of the expulsive cause; the surface, I say, appeared rather better electrified thereby, than proper to produce all the effects of an actual electric body."

The Abbé does not tell us what those effects were, all the effects he could observe, and those that are to be observed can easily be accounted for, by supposing that side to be entirely destitute of electric matter. The sensible effect of a body charged with electricity is, that when you present your fin-

ger to it, a spark will issue from it to your finger: now when a phial, prepared for the Leyden experiment, is hung on the gun-barrel or prime conductor, and you turn the globe in order to charge it; as soon as the electric matter is excited, you observe a spark to issue from the external surface of the phial to your finger, which, Mr. Franklin says, is the natural electric matter of the glass driven out by the received by the inner face from the conductor. If it be only drawn out by sparks, a number of them may be drawn; but if you take hold of the external surface with your hand, the phial will soon receive all the electric matter it is capable of, and the outside will then be entirely destitute of its electric matter, and no spark can be drawn from it by the finger: here then is a want of that effect, which all bodies charged with electricity have. Some of the effects of an electric body, which I suppose the Abbé has observed in the exterior surface of a charged phial, are, that all light bodies are attracted by it. This is an effect which I have constantly observed, but do not think that it proceeds from an attractive quality in the exterior surface of the phial, but in those light bodies themselves, which seem to be attracted by the phial. It is a constant observation, when one body has a greater charge of electric matter in it than another (that in proportion to the quantity they will hold) the body will attract the which has less: now, I suppose, and it is a part of Mr. Franklin's system, that all those light bodies which appear to be attracted, have electric matter in them than the external surface of the phial has, wherefore they endeavour to attract the phial to them, which is too heavy to be moved by the small degree of force they exert, and yet being greater than their weight, draw them to the phial. The following experiment will help the imagination in conceiving this. Suspend a cork ball, or a feather, by a silk thread, and electrify it; then bring this ball nigh to any fixed body, and it will appear to be attracted by that body, for it will fly to it: now, by the attraction of electricians, the attractive cause is in the ball itself, and not in the fixed body to which it flies: this is a similar with the apparent attraction of light bodies, to the external surface of a charged phial.

The Abbé says, "that he electrified a hundred men, standing on wax, if they touch hands, and if of them touch these surfaces (the exterior) with the end of his finger:" this I know he can, while the phial is charging, but after the phial is charged I am as certain he cannot: that is, hang a phial, prepared for the Leyden experiment, to the conductor, and let a man, standing on the floor, touch the coating with his finger, while the globe is turned, till the electric

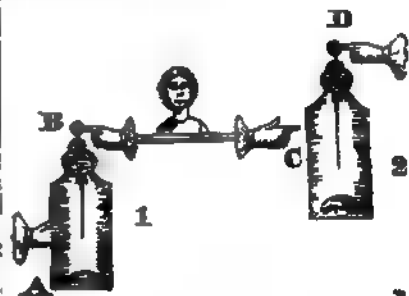
* This is the celebrated Watson, bishop of Landaff.

spews out of the hook of the phial, or some part of the conductor, which I have seen the certain sign that the phial has received all the electric matter it can: after this appears, let the man, who stands on the floor, step on a cake of wax, where he may stand for hours, and the globe all the time turned, and yet have no appearance of being electrified. After the electric matter was spewed out as above from the coating of the phial prepared for the Leyden experiment, I hung another phial, in like manner prepared, to a hook fixed in the coating of the first, and held the other phial in my hand; if there was any electric matter transmitted through the glass of the first phial, the second one would certainly receive and collect it; but having kept the phials in this situation for a considerable time, during which the globe was continually turned, I could not perceive that the second phial was in the least charged, for when I touched the hook with my finger, as in the Leyden experiment, I did not feel the least commotion, nor perceive any spark issue from the hook.

I likewise made the following experiment: having charged two phials (prepared for the Leyden experiment) through their hooks; two persons took each one of these phials in his hand; one hold his phial by the coating, the other by the hook, which he could do by removing the communication from the bottom before he took hold of the hook. These persons placed themselves each one on each side of me, while I stood on a cake of wax, and took hold of the hook of that phial which was held by its coating (upon which a spark issued, but the phial was discharged, as I stood on wax) keeping hold of the hook, I touched the coating of the phial that was held by its hook with my other hand, upon which there was a large spark to be seen between my finger and the coating, and both phials were instantly discharged. If the Abbé's opinion be right, that the exterior surface, communicating with the coating, is charged, as well as the interior, communicating with the hook; how can I, who stand on wax, discharge these phials, when it is well known I could not discharge one of them singly? Nay, suppose I have drawn the electric matter from both of them, what becomes of it? For it appears to have no additional quantity in me when the experiment is over, and I have stirred off the matter; therefore this experiment fully convinces me, that the exterior surface is not charged; not only so, but that it contains much electric matter as the inner has of excess: by this supposition, which is a part of Mr. Franklin's system, the above experiment is easily accounted for, as follows:

When I touch my body, I am not capable of receiving all the electric matter from the hook of the phial, which it is ready

to give; neither does it give so much to the coating of the other phial as it is ready to take when one is only applied to me: but when both are applied, the coating takes from me what the hook gives: thus I receive the fire from the first phial, B, the exterior surface of which is supplied from the hand A: I give the fire to the second phial C, whose interior surface is discharged by the hand at D. This discharge at D may be made evident by receiving that fire into the hook of a third phial, which is done thus: I place of taking the hook of the second phial in your hand, run the wire of a third phial, prepared for the Leyden experiment, through it, and hold this third phial in your hand, the second one hanging to it, by the ends of the hooks run through each other: when the experiment is performed, this third phial receives the fire at D, and will be charged.



When this experiment is considered, I think it must fully prove that the exterior surface of a charged phial contains electric matter, while the inner surface has an excess of it. One thing more worthy of notice in this experiment is that I feel no commotion or shock in my hand though a great quantity of electric matter passes them instantaneously. I only feel a pricking in the ends of my fingers. This makes me think the Abbé has mistook, when he says that there is no difference between the shock felt in performing the Leyden experiment, and the pricking felt on drawing simple sparks, except that of greater or less. In the last experiment, as much electric matter passes through my hand as would have given me a very sensible shock, had there been no immediate communication by my hand from the coating of the same phial; because when it is taken into a third phial, that phial discharged singly through my hand it gave me a sensible shock. These experiments prove that the electric matter does not pass through the entire thickness of the glass, it is a necessary consequence that it always comes out where it entered. The next thing I have to mention is in the Abbé's letter, where he differs from Mr.

Franklin, who thinks that the whole power of giving a shock is in the glass itself, the experiments which Franklin gave to prove this opinion, his *Observations on the Leyden Bottle*,* convinced me he was in the right; what the has asserted, in contradiction thereto, made me think otherwise. The Abbé, perceiving as I suppose, the experiments, as Mr. Franklin had performed them, must prove his assertion, alters them without giving any reason for it, makes them in such a manner that proves nothing. Why will he have the phial, into which the water is to be decanted from a charged phial, in a man's hand? If the power of giving a shock is in the water contained in the phial, it should remain there though decanted into another phial, since no non-electric body touched it to take that power off. The phial being placed in the water is no objection, for it cannot take the power from the water, if any, but it is a necessary means to try the fact; whereas, that phial's being charged when held in a man's hand, only proves that water will conduct the electric matter. The Abbé owns, that he had heard this remarked, but says, why not a conductor of electricity an electric subject? This is not the question; Mr. Franklin never said that water was not an electric subject; he said, that the power of giving a shock was in the glass, not in the water; and this, his experiments fully prove; so fully, that it may appear impertinent to offer any more; yet as I do know that the following has been taken notice of by any body before, my inserting of it in this place may be excused. It is this: hang a phial, prepared for the Leyden experiment, to the conductor, by its hook, and charge it; which done, remove the communication from the bottom of the phial: the conductor shows evident signs of being electrified; for if a thread be tied round it, and the ends about six inches long, they will extend themselves as a part of horns; but if you touch the conductor, a spark will issue from it, and the threads will fall, does the conductor show the least sign of being electrified after this is done. I think that by this touch, I have taken out all the charge of electric matter that was in the conductor, the hook of the phial, and water or filings of iron contained in it; which is no more than we see all non-electric bodies receive: yet, the glass of the phial retains its power of giving a shock, as any one will find that pleases to try. This experiment fully proves that there is no more electric matter in the phial than in an open basin, and has not any of that great quantity which produces the shock, and is only

retained by the glass. If after the spark is drawn from the conductor, you touch the coating of the phial (which all this while is supposed to hang in the air, free from any non-electric body) the threads of the conductor instantly rise up, and show that the conductor is electrified. It receives this electrification from the inner surface of the phial which, when the outer surface can receive what it wants from the hand applied to it, will give as much as bodies in contact with it can receive, if they are large enough, all that it has of excess. It is diverting to see how the threads will rise and fall by touching the coating of the conductor of the phial alternately. May it not be that the difference between the charged side of the glass, and the outer emptied side, being lessened by touching the hook or the conductor; the outer receives more which touched it, and by its receiving, the inner side cannot retain so much; and the reason so much as it contains contain electrifies the water, or filings and conductor: for it seems to be a rule, that the one side must be emptied in the same proportion that the other is filled, though this from experiment appears evident, yet it is still a mystery not to be accounted for.

I am in many places of the Abbé's book surprised to find that experiments have succeeded so differently at Paris, from what they did with Mr. Franklin, and as I have always observed them to do. The Abbé, in making experiments to find the difference between the surfaces of a charged glass, will not have the phial placed on wax: for, says he, don't you know that being placed on a body originally electric, it quickly loses its virtue! I cannot imagine what should have been the reason they think so: it certainly is contradictory to notions commonly received of electricity; and by experiment I find it entirely otherwise: for having several times left a charged phial, for that purpose, standing on wax for hours, I found it as much of its charge as another stood the same time on a table. I left one standing from ten o'clock at night till eight the next morning, when I found it retain a sufficient quantity of charge, to give me a sensible commotion in my arms, though the room in which the phial stood had been swept in that time, which we have raised much dust to facilitate the discharge of the phial.

I find that a cork-ball suspended between two bottles, the one fully and the other but little charged, will play between them, is driven into a situation which makes a triangle with the hook of the phials: though the Abbé has asserted the contrary of this, in order to show that the playing of a cork-ball between the wire thrust into the phial, one from the coating. The

* See pages 265 to 269, of this volume.

phial which is charged have more electric given to it, in proportion to bulk, than the cork ball receives from the hook of the phial.

The Abbé says, "That a piece of metal leaf hung to a thread and electrified, will be repelled by the bottom of a charged phial held by its hook in the air:" thus I find constantly otherwise, it is with me always first attracted and then repelled: it is necessary, in charging the leaf, to be careful that it does not fly off a non-electric body, and to discharge itself when you think it is charged; it does keep it from your wrist, or to some part of your body.

The Abbé says, "That it is impossible, Mr. Franklin says it is, to charge a phial while there is a communication formed between its coating and its hook." I have always found it impossible to charge such a phial to give a shock: indeed, if it hang on the conductor without a communication from it, you may draw a spark from it as you may from any body that hangs there, but this is very different from being charged in such a manner to give a shock. The Abbé, in order to account for the little quantity of electric matter that is to be found in the phial, says, "that it rather follows the metal than the glass, and that it is spewed out into the air from the coating of the phial." I wonder how it comes to do so too, when it runs through the glass, and charges the exterior surface, according to the Abbé's system.

The Abbé's objection against Mr. Franklin's two last experiments, I think, have little weight in them: he seems, indeed, much at a loss what to say, wherefore he taxes Mr. Franklin with having concealed a material part of the experiment; a thing too mean for any gentleman to be charged with, who has not shown so great a partiality in relating experiments, as the Abbé has done.

To Dr. Pringle, London.

A curious Instance of the Effect of Oil on Water.

PHILADELPHIA, Dec. 1, 1768.

DURING MY passage at Madeira, the weather being warm, and the cabin windows constantly open, for the benefit of the air, the candles at night flared and were very much, which was an inconvenience. At Madeira we got oil to burn, and with a common glass tumbler or break, slung in wire, and suspended the ceiling of the cabin, and a little wire hoop for the wick, furnished with corks to stop on the oil, I made an Italian lamp, that gave very good light all over the table.—The glass at bottom contained to about one third of height; another third taken with oil; the rest was left

empty that the sides of the glass might protect the flame from the wind. There is nothing remarkable in all this; but what follows is particular. At supper, looking on the lamp, I remarked, that though the surface of the oil was perfectly tranquil, it duly preserved its position and distance with regard to the brim of the glass, the water under the glass was in great commotion, rising and falling in irregular waves, which continued during the whole evening. The lamp kept burning as a watch light all night, till the oil was spent, and the water only remained. In the morning I observed, that though the motion of the ship continued the same, the water was now quiet, and its surface as tranquil as that of the oil had been the evening before. At night again, when oil was put upon it, the glass resumed its irregular motions, rising in high almost to the surface of the oil, but without disturbing the smooth level of that surface. And this repeated every day during the voyage.

Since my arrival in America, I have repeated the experiment frequently thus: I have put a packthread round a tumbler, with strings of the same from each side meeting above it in a knot about a foot distance from the top of the tumbler. Then putting in as much water as would fill about one third part of the tumbler, I lifted it up by the knot, and swung it to and fro in the air; when the water appeared to keep its place in the tumbler as steadily as if it had been ice. But pouring gently upon the water about as much oil, and then again swinging it in the air as before, the tranquillity before possessed by the water, was transferred to the surface of the oil, and the water under it was agitated with the same commotions as at sea.

I have shown this experiment to a number of ingenious persons. Those who are but slightly acquainted with the principles of hydrostatics, &c. are apt to fancy immediately that they understand it, and readily attempt to explain it; but their explanations have been different, and to me very intelligible. Others, more deeply skilled in those principles, seem to wonder at it, and promise to consider it. And I think it is worth considering; for a new appearance, if it cannot be explained by our old principles, may be a new one, of use perhaps in explaining other obscure parts of natural knowledge.

B. FRANKLIN.

Dr. Brouncker to Dr. Franklin.

Of Stilling of Waves by means of Oil.—Extracted from sundry letters accompanying.—Read at the Royal Society, June 2, 1771.

ONE LETTER AFTER, JANUARY 27, 1773

By the enclosed from an old friend, a worthy clergyman Mr. Carlisle, whose great learn

and extensive knowledge in most sciences would have distinguished him, had he been placed in a conspicuous point of view, you will find, he heard of your experiment on Derwent Lake, and has thrown together what he could collect on subject; to which I have subjoined one experiment from the relation of another gentleman

Rev. Mr. Farish to Dr. Brownrigg.

I ago met with Mr. Dun, who surprised me with account of an experiment you had tried upon the Derwent water, company with John Pringle and Dr. Franklin. According to his representation, the water, which had been in great agitation before, was instantly calmed upon pouring in only a very small quantity of oil, and that to great distance round the boat seemed incredible. I had the accounts from others, but I suspect all of a little exaggeration. Pliny mentions this property of oil known particularly to the divers, who made use of it in his days, in order to have more steady light at the bottom.* The sailors, I have been told, have observed something of the same kind in our days, that the water is always remarkably smoother, to the wake of a ship that has been newly tallowed, than it is in that is foul. Mr Pennant also mentions an observation of like nature made by the seal catchers in Scotland. *Brit. Zool. Vol. II. Article Seal.* When these animals are devouring a very oily which they always do under water, the waves above are observed to be remarkably smooth, and by this mark the fishermen know where to look for them. Old Pliny does not usually meet with all the credit I am inclined to think he deserves. I shall be glad to have an authentic account of the Keswick experiment, and if it comes up to the representations that have been made of it, I shall not much hesitate to believe the old gentleman in another more wonderful phenomenon he of stilling a tempest only by throwing up a little vinegar into the

Dr. Franklin to Dr. Brownrigg.

LONDON, Nov. 7 1773

I THANK you for the remarks of your learned friend at Carlisle. I had, when a youth, read and smiled at Pliny's account of a practice seamen of his time, to the

* Note by Dr. Brownrigg.—Sir Gilbert Lauson who served long in the army at Gibraltar assured me that the fishermen in that place are accustomed to pour a little oil on the sea in order to still its motion, that they may be enabled to see the oysters lying at its bottom which are there very large, and which they take up with a . TULL often seen there performed said the same practiced on parts of the Spanish

waves in a storm by pouring oil into the sea which he mentions, as well as the use made of oil by the divers; but the stilling a tempest by throwing vinegar the had escaped me. I think with your friend, that it has been of late too much the mode to slight the learning of the ancients. The learned, too, are apt to slight too much the knowledge of the vulgar. The cooling by evaporation was long an instance of the latter. This art of smoothing the waves by oil is an instance of both.

Perhaps you may not dislike have an account of all have heard, and learnt, and done in this way. Take it if you please as follows.

In 1757, being a fleet of 46 sail bound against Louisbourg, I observed the wakes of two of the ships to be remarkably smooth, while all the others were ruffled by the wind, which blew fresh. Being puzzled with this differing appearance, I at last pointed it out our captain, and asked him the meaning of it. "The cooks," says he, "have, I suppose, been just emptying their greasy water through the scuppers, which has greased the sides of those ships a little;" and this answer he gave me with an air of little contempt, as to a person ignorant of what every body else knew. In my own mind I at first slighted his solution, though I was not able to think of another, but recollecting what I had formerly read in Pliny, I resolved to make some experiment of the effect of oil water when I should have opportunity.

Afterwards being again at sea in 1762, I first observed the wonderful quietness of oil on agitated water, in the window glass being I made to hang up in the cabin as described in my printed paper. This I was continually looking and considering, is an appearance to me inexplicable. An old sea captain, then a passenger with me, thought little of it, supposing an effect of the same kind with that of oil put water to smooth it, which he said a practice of the Bermudians when they would strike fish, which they could not see if the surface of the water was ruffled by the . This practice I had never before heard of, and was obliged to him for the information; though I thought him mistaken to the of the experiment, the operations being different well as the effects. In case, the water is smooth till the oil is put on, and then becomes agitated. In the other it is agitated before the is applied, becomes smooth. The same gentleman he had heard it was a practice with the fishermen of Lisbon when about 60 years the river (if they before them too great a surf upon the bar, which they apprehended might fill their boats in passing) to empty a bottle or two of oil, the sea, which would suppress the breakers, allow them pass safely. A

confirmation of ■■■ I have ■■■ since ■■■ an opportunity of obtaining : but discoursing of it with another person, who had often been in the Mediterranean, I ■■■ informed, that the divers there, who, when under ■■■ in their business, need light, which the curling of the surface interrupts by the refractions of so many little waves, let ■ small quantity of oil now and then out of their mouths, which rising to the surface smooths it, and permits the light to come down to them. All these informations I at times revolved in my mind, and wondered to find ■ mention of them in our books of experimental philosophy.

At length being ■ Clapham, where there is, on the common, ■ large pond, which I observed ■ day to ■ very rough with the wind, I fetched out a cruet of oil, and dropt a little of it on the water. I saw it spread itself with surprising swiftness upon the surface; but the effect of smoothing the waves ■ not produced: for I ■ applied it first on the leeward side of the pond, where the waves were largest, and the wind drove my oil back up in the rhora. I then went to the windward side where they began to form; and there the oil, though not more than a tea-spoonful, produced ■ instant calm over a space several yards square, which spread amazingly, and extended itself gradually till it reached the leeward side, making all that quarter of the pond, ■ perhaps half an acre, as smooth as a looking-glass.

After this I contrived to take with me, whenever I went into the country, ■ little oil in the upper hollow joint of my bamboo ■ with which I might repeat the experiment as opportunity should offer, and I found ■ constantly ■ succeed.

In those experiments, ■ circumstance struck ■ with particular surprise. This was the sudden, wide, and forcible spreading of a drop of oil ■ the face of the water, which I do not know that any body has hitherto considered. If a drop of oil is put on ■ highly polished marble table, or on a looking-glass that lies horizontally, ■ drop remains in its place, spreading very little. But when put ■ water, it spreads instantly many feet round, becoming so thin as to produce the prismatic colours, for ■ considerable space, and beyond them ■ much thinner ■ be invisible, ■ cept in ■ effect of smoothing the ■ ■ a much greater distance. It seems as if a mutual repulsion between its particles took place ■ soon ■ it touched the water, and a repulsion ■ so strong ■ to act on other bodies swimming ■ surface, ■ straw, leaves, chips, &c. forcing them ■ recede every way ■ the drop, ■ from ■ centre, leaving a large clear space. The quantity of this force, and the ■ ■ which ■ will operate. I have not yet ascertained; but I think ■ is a curi-

ous inquiry, ■ I wish to understand whence it arises.

In our journey to the north, when we had the pleasure of seeing yon ■ Ormathwaite, we visited the celebrated Mr. Smeaton, ■ Leeds. Being about to show him the smoothing experiment on a little pond ■ his house, an ingenious pupil of his, ■ Jessop, then present, told us of ■ appearance on that pond, which had lately occurred to him. He ■ about to clean a little cup in which he kept oil, and he threw upon the water some flies that had been drowned in the oil. These flies presently began to move, and turn round on the water very rapidly, ■ if they were vigorously alive, though ■ examination he found they were not ■ I immediately concluded that the motion was occasioned by the power of the repulsion above mentioned, and that the oil issuing gradually from the spongy body of the fly continued the motion. He found some more ■ drowned in oil, with which the experiment ■ repeated before ■ To show that it ■ not any effect of life reserved by the flies, I imitated it by little bits of oiled chips and paper cut ■ the form of a comma, of the size of a ■ fly; when the stream of repelling particles issuing from the point made the comma turn round the contrary way. This is ■ a chamber experiment; for it cannot be well repeated ■ bowl or dish of ■ on a table. A considerable surface of ■ is necessary to give room for the expansion of a small quantity of oil. In a dish of water, if the smallest drop of oil be let fall in the middle, the whole surface is presently covered with a thin greasy film proceeding from the drop; but ■ ■ that film has reached the sides of the dish, no more will it ■ from the drop, but it ■ the form of oil, the side of the dish putting a stop to its dissipation by prohibiting the farther expansion of the film.

Our friend, sir John Pringle, being ■ after in Scotland, learned there, that those employed ■ the herring fishery could at a distance see where the shoals of herrings were, by the smoothness of the water over them, which might possibly be occasioned, he thought, by some oiliness proceeding from their bodies.

A gentleman from ■ Island told me, it had been remarked, that the harbour of Newport ■ ever smooth while any whaling vessels were in it: which probably ■ from hence, that the blubber which they ■ bring loose in the hold, or the leakage of their barrels, might ■ some oil, to ■ with ■ water, which from ■ ■ they pump out ■ keep their vessel free, and that some oil might spread ■ the surface of the ■ in the harbour, ■ prevent the forming of any ■

This prevention I would thus endeavour to explain.

There ~~is~~ ^{is} to be no natural repulsion between water and air, such ~~as~~ ^{as} keep ~~them~~ ^{them} from coming into ~~contact~~ ^{contact} with each other.— Hence ~~we~~ ^{we} find ~~a~~ ^a quantity of air ~~in~~ ⁱⁿ water; and if ~~we~~ ^{we} extract it by means of the air-pump the same water, again exposed to the air, ~~will~~ ^{will} imbibe ~~an~~ ^{an} equal quantity.

Therefore air in motion, which in wind, in passing over the smooth surface of water, may rub, ~~as~~ ^{as} it were, upon that surface, and raise ~~it~~ ^{it} into wrinkles, which if the wind continues, are the elements of future ~~disturbance~~ ^{disturbance}.

The smallest ~~wave~~ ^{wave} once raised does not immediately subside, and leave the neighbouring water quiet: but in subsiding ~~it~~ ^{it} nearly as much of the water ~~is~~ ^{is} to it, the friction of the parts making little difference. Thus a stone dropped in a pool raises first ~~a~~ ^a single wave round itself; and leaves it, by sinking to the bottom: but that first ~~sub-siding~~ ^{sub-siding} ~~is~~ ^{is} second, the second a third, and ~~so~~ ^{so} in circles to ~~a~~ ^a great extent.

A small power continually operating will produce a great action. A finger applied to a weighty suspended bell ~~at~~ ^{at} first move it but little; if repeatedly applied, though with no greater strength, the motion increases ~~the~~ ^{the} bell swings to its utmost height, and with ~~a~~ ^a force that cannot be resisted by the whole strength of the arm and body. Thus the small first raised ~~being~~ ^{being} continually acted upon by the wind, are, though the wind does not increase in strength, continually increased in magnitude, rising highly and extending their bases, so as to include a ~~mass~~ ^{mass} of water in each wave, which in its motion ~~is~~ ^{is} with great violence.

But if there be ~~a~~ ^a mutual repulsion between the particles of oil, and ~~an~~ ^{an} attraction between oil and water, oil dropped ~~on~~ ^{on} water will not be held together by adhesion to the spot whereon it falls; it will ~~be~~ ^{be} at liberty ~~to~~ ^{to} expand itself; and ~~it~~ ^{it} will spread ~~on~~ ^{on} a surface that, besides being smooth ~~is~~ ^{is} the most perfect degree of polish, prevents, perhaps by repelling the oil, all immediate contact, keeping it at a minute distance from itself: and the expansion will continue till the mutual repulsion between the particles of the oil is weakened and reduced to nothing by their distance.

Now I imagine that the wind, blowing over water thus covered with ~~a~~ ^a film of oil, cannot easily catch upon it, so ~~as~~ ^{as} raise the first wrinkles, but slides over it, and leaves ~~it~~ ^{it} smooth as it ~~is~~ ^{is} it. It moves a little the oil indeed, which being between it and the water, ~~is~~ ^{is} it ~~with~~ ^{with} and prevents friction, ~~the~~ ^{the} oil ~~between~~ ^{between} those parts of a machine, ~~which~~ ^{which} would otherwise rub hard together. Hence the oil dropped on the windward side of a pond proceeds gradually to lee-

ward, ~~as~~ ^{as} may be seen by the smoothness it carries with it, quite ~~to~~ ^{to} the opposite side. For ~~the~~ ^{the} wind being thus prevented from raising the first wrinkles, that I call the elements of ~~the~~ ^{the} produce waves, which ~~are~~ ^{are} made by continually acting upon, and enlarging those elements, and thus the whole pond ~~is~~ ^{is} calmed.

Totally therefore we might suppress the waves in any required place, if we could come at the windward place where they take their rise. This in the ocean ~~is~~ ^{is} seldom if ever be done. ~~But~~ ^{But} perhaps something may be done on particular occasions, to moderate the violence of the ~~waves~~ ^{waves} when ~~they~~ ^{they} are in the midst of them, and prevent their breaking where that would be inconvenient.

For when the wind blows fresh, there ~~is~~ ^{is} continually rising ~~on~~ ^{on} the back of every great ~~wave~~ ^{wave} a number of small ones, which roughen its surface, and give the wind hold, as it were, to push it with greater force. Thus hold ~~is~~ ^{is} diminished, by preventing the generation of those small ~~ones~~ ^{ones}. And possibly too, when ~~a~~ ^a wave's surface is oiled, the wind in passing over it, may rather in some degree press it down, and contribute to prevent it rising again, instead of promoting it.

This ~~is~~ ^{is} mere conjecture would have little weight, if the apparent effects of pouring oil into the midst of ~~the~~ ^{the} were not considerable, and as yet not otherwise accounted for.

When the wind blows so fresh, ~~as~~ ^{as} that the waves are not sufficiently quick in obeying its impulse, their tops being thinner and lighter are pushed forward, broken, and turned ~~into~~ ^{into} in ~~a~~ ^a white foam. Common waves lift a vessel without entering it; but these when large sometimes break above and pour over it, doing great damage.

That this effect might in any degree be prevented, ~~on~~ ^{on} the height and violence of waves, in the ~~case~~ ^{case} moderated, we had no certain account; Pliny's authority for the practice of ~~it~~ ^{it} in his time being slighted. But discoursing lately on this subject with his excellency count Bentinck, of Holland, his ~~honourable~~ ^{honourable} captain Bentinck, and the learned professor Allemand (to all whom I showed the experiment of smoothing in a windy day the large piece of water ~~on~~ ^{on} the head of the Green Park) ~~a~~ ^a letter ~~was~~ ^{was} mentioned, which ~~had~~ ^{had} been received by the count from Batavia, relative ~~to~~ ^{to} the ~~case~~ ^{case} of ~~a~~ ^a Dutch ship in a storm by pouring oil into the ~~water~~ ^{water}. I much desired ~~to~~ ^{to} see that letter, and a copy of it was promised me, which ~~I~~ ^I afterward received.

Mr. Truenaegel to Count Bentinck.

BATAVIA, JANUARY 5, 1779

NEAR the islands Paul and Amsterdam, we met with a storm, which had nothing particular in it worthy of being communicated

to you, except that the captain found himself obliged for greater safety in wearing the ship, to pour oil into the sea, to prevent the waves breaking over her, which had an excellent effect, and succeeded in preserving us. As he poured out but a little at a time, the East India Company perhaps its ship only a drachm of olive-oil. I present upon deck when this was done; and I should have mentioned this circumstance to you, but that we have found people here prejudiced against the experiment, to make it necessary for the officers on board and myself to give a certificate of the truth on this head, of which we made no difficulty.

On this occasion, I mentioned to captain Bentinck, a thought which occurred to me in reading the voyages of late circumnavigators, particularly where accounts are given of pleasant and fertile islands which they much desired to land upon, when sickness made it more necessary, but could not effect a landing through a violent surf breaking on the shore, which rendered it impracticable. My idea was that possibly by sailing to and fro at some distance from such lee-shore, continually pouring oil into the sea, the waves might be much depressed, and lessened before they reached the shore, to abate the height and violence of the surf, and permit a landing; which, in such circumstances, was a point of sufficient importance to justify the expense of the oil that might be requisite for the purpose. That gentleman, who is ready to promote what may be of public utility, though his own ingenious inventions have always met with the countenance they merited, was so obliging to invite me to Portsmouth, where an opportunity would probably offer, in the course of a few days, of making the experiment on some of the shores about Spithead, in which he kindly proposed to accompany me, and to give assistance with such boats as might be necessary. Accordingly, about the middle of October last, I went with some friends to Portsmouth; and a day of wind happening, which made a lee-shore between Hasler-hospital and the point near Jilkkerker, we from the Centaur with the long-boat and barge towards that shore. Our disposition was this: the long-boat anchored about a quarter of a mile from the shore; part of the company were landed behind the point (a place sheltered from the sea) who round and placed themselves opposite to the long boat, where they might see the surf, and note if any change occurred in it upon using the oil. Another party, in the barge, plied to windward of the long boat, as far from her as she was from the shore, making trips of about a mile each, pouring oil continually out of a large bottle, through a hole in the cork, somewhat bigger than a goose-quill. The

experiment had not, in the main point, the success we wished, for no material difference was observed in the height or force of the surf upon the shore; but those who were in the long-boat could observe a change of smooth water, the whole of the distance in which the barge poured the oil, and gradually spreading in breadth towards the long-boat. I call it smoothed, not that it was laid level; but because, though the swell continued, its surface was not roughened by the wrinkles or smaller waves, before-mentioned; and none very few white foam (or whose tops turn over foam) appeared in the whole space, though to windward and leeward of it there were plenty of a wherry, that round the point under sail, in her way to Portsmouth, seemed to turn into that tract of choice, and to use from end to end, as a piece of turnpike-road.

It may be of use to relate the circumstances of an experiment that does not succeed, since they may give hints of amendment in future trials: it is therefore I have been thus particular. I only add what I apprehend may have been the cause of our disappointment.

I conceive, that the operation of oil on water is, first, to prevent the raising of waves by the wind; and, secondly, to prevent pushing those before raised with such force, and consequently their continuance of the same repeated height, as they would have done, if their surface were not oiled. But oil will not prevent waves being raised, by another power, by a stone, for instance, falling into a still pool; for they then rise by the mechanical impulse of the stone, which the greasiness on the surrounding water cannot prevent, as it cannot prevent the winds catching the surface and raising it into waves. Now waves raised, whether by the wind or any other power, have the same mechanical operation, by which they continue to rise and fall, and a prodigum will continue to swing a long time after the force ceases to act by which the motion was first produced: that motion will, however, cease in time; but it is necessary. Therefore, though oil spread on an agitated sea may weaken the push of the wind on those waves whose surfaces are covered by it, and so, by receiving fresh impulse, they may gradually subside; yet a considerable time, and a distance through which they will take time to move, may be necessary to make the effect sensible on any shore in a diminution of the surf: for we know, that when wind ceases suddenly, the waves it raised do not suddenly subside, but settle gradually, and are quite down after the wind ceases. So though we should, by oiling them, take off the effect of wind on waves already raised, it is not to be expected that those waves should be

instantly levelled. The motion they have received, will some time continue; and if the shore is not far distant, they there soon, that their effect upon it will be visibly diminished. Possibly, therefore, if we had begun our operations at a greater distance, the effect might have been more sensible. And perhaps we did not pour sufficient quantity. Future experiments may determine this.

I was, however, greatly obliged to captain Bentinck, for the cheerful and ready aid he gave me; and I ought not to omit mentioning Mr. Banks, Dr. Solander, general Carmac, and Dr. Blagden, who all assisted at the experiment, during this blustering unpleasant day, with a patience and activity that could only be inspired by a zeal for the improvement of knowledge, such especially might possibly be of use to men in situations of distress.

I most wish you to communicate this to your ingenious friend, Mr. Farish, with my respects; and believe me to be, with sincere esteem,

B. FRANKLIN.

To Peter Collinson, London.

Electrical Kite.

PHILADELPHIA, Oct. 26. 1738

As frequent mention is made in public papers from Europe of the experiment of the Philadelphia experiment for drawing electric fire from clouds by means of pointed rods of iron erected on high buildings, &c. it may be agreeable to the curious to be informed that the same experiment has succeeded in Philadelphia, though made in a different and more easy manner, which is as follows:

Make a small cross of two light strips of cedar, the arms as long as to reach to the four corners of a large thin silk handkerchief when extended; tie the corners of the handkerchief to the extremities of the cross, so you have the body of a kite; which being properly accommodated with a tail, loop, and string, will rise in the air, like those made of paper: but this being of silk is fitter to bear the wet and wind of a thunder gust without tearing. To the top of the upright stick of the cross is to be fixed a very sharp pointed wire, rising a foot above the wood. To the end of the twine, next the hand, is to be tied a silk ribbon, and where the wire and twine join, a key may be fastened. This kite is to be raised when a thunder-gust appears to be coming on, the person who holds the string must stand within a door or window, or under some cover, so that the silk ribbon may not be wet; and care must be taken that the twine does not touch the bottom of the door or window. As soon as any of the thunder clouds come over the kite, the pointed wire will draw the electric fire from them, and the kite, with all

the twine, will be electrified, and the loose filaments of the twine will stand out every way, and be attracted by an approaching fire. And when the ram has wetted the kite and twine, that it conduct the electric fire freely, you will find it stream out plentifully from the key on the approach of your knuckle. At this key the phial may be charged; and from electric fire thus obtained, spirits may be kindled, and all the other electric experiments be performed, which are usually done by the help of a rubbed glass globe or tube, and thereby the nature of the electric matter with that of lightning completely demonstrated. B. FRANKLIN.

To the same.

Hypothesis of the Sea being the grand source of Lightning, retraced. Positive, and some times negative, Electricity of the Clouds discovered—New Experiments and Conjectures in support of this Theory—Observations recommended for ascertaining the Direction of the electric Fluid—Size of Rods for conductors in Buildings—Appearance of a Thunder-cloud described.

PHILADELPHIA, September, 1735.

In my former paper on this subject, written in 1737, enlarged and sent to England in 1749, I considered the sea as the grand source of lightning, imagining its luminous appearance to be owing to electric fire produced by friction between the particles of water and those of salt. Laying far from the sea, I had then no opportunity of making experiments on the water, and so embraced this opinion too hastily.

For in 1730 and 1731, being occasionally on the sea-coast, I found by experiments, that sea-water in a bottle, though at first it would by agitation appear luminous, yet in a few hours it lost that virtue: hence and from this, that I could not by agitating a solution of sea-salt in water produce any light. I first began to doubt of my former hypothesis, and to suspect that the luminous appearance was not owing to other principles.

I then considered whether it were not possible, that the particles of air, being electrica per se, might, in hard gales of wind, by their friction against trees, hills, buildings, &c. on many electric globes, rubbing against non-electric cushions, draw the electric fire from the earth, and that the rising vapours might receive fire from the air, and by such means the clouds become electrified.

This evening, I imagined that by forcing a violent stream of air against my prime conductor, by bellows, I should electrify it negatively; the rubbing particles of air, drawing from it part of its natural quantity of the electric fluid. I accordingly made the experiment, but it did not succeed.

In September 1752, I erected an iron rod to draw the lightning down into my house, in order to make some experiments on it, with two bells to give notice when the rod should be electrified; a contrivance obvious to every

I found the bells sometimes when there was no lightning or thunder, but only a dark cloud over the rod; that sometimes after a flash of lightning they would suddenly stop; and at other times, when they were not rung before, they would, after a flash, suddenly begin to ring; that the electricity was sometimes very faint, so that when a small spark was obtained, another could not be got for some time after; at other times the sparks would follow extremely quick, and I had a continual rattling from bell to bell, the size of a crow quill: even during the greatest there were considerable variations.

In the winter following I conceived an experiment, to try whether the clouds were electrified positively or negatively; but my pointed rod, with its apparatus, becoming out of order, I did not refit it till towards the spring, when I expected the weather would bring on frequent thunder-clouds.

The experiment was this: to take two phials; charge one of them with lightning from the iron rod, and give the other an equal charge by the electric glass globe, through the prime conductor: when charged, to place them on a table within three or four inches of each other, a small cork being suspended by a fine silk thread from the ceiling, so as it might play between the wires. If both bottles then were electrified positively, the ball being attracted and repelled by one, must be also repelled by the other. If the one positively, and the other negatively; then the ball would be attracted and repelled alternately by each, and continue to play between them as long as any considerable charge remained.

Being very intent on making this experiment, it was no small mortification to me, that I happened to be abroad during one of the greatest thunder-storms we had early in the spring, and though I had given orders in my family, that if the bells rang when I was from home, they should catch some of the lightning, for me in electrical phials, and they did so, yet it was mostly dissipated before my return, and in one of the other gusts, the quantity of lightning I was able to obtain was so small, the charge so weak, that I could not satisfy myself: yet I sometimes saw what heightened my suspicions, and inflamed my curiosity.

At last, on the 12th of April, 1753, there being a smart gust of some continuance, I charged one phial pretty well with lightning, and the other equally, as near as I could judge, with electricity from my glass globe;

and, having placed them properly, I beheld, with great surprise and pleasure, the cork ball play briskly between them; and was convinced that one bottle was electrified positively,

I repeated this experiment several times during the gust, and in eight succeeding gusts, always with the same success; and being of opinion (for reasons I formerly gave in my letter to Mr. Kimmerley, since printed in London) that the glass globe electrifies positively, I concluded that the clouds are always electrified negatively, or have always in them less than their natural quantity of the electric fluid.

Yet notwithstanding so many experiments, it was not till I concluded too soon; for on the 6th, at a gust which continued from five o'clock, P. M. to seven, I met with one cloud that was electrified positively, though several that passed over my rod before, during the same gust, were in the negative state. This was thus discovered:

I had another concurring experiment, which I often repeated, to prove the negative state of the clouds, viz. while the bells were ringing, I took the phial charged from the glass globe, and applied its wire to the erected rod, considering, that if the clouds were electrified positively, the rod which received its electricity from them; must be so too; and then the additional positive electricity of the phial would make the bells ring faster:—but, if the clouds were in a negative state, they must exhaust the electric fluid from my rod, and bring that into the negative state with themselves, and then the wire of a positively charged phial, supplying the rod with what it wanted (which it was obliged otherwise to draw from the earth by means of the pendulous brass ball playing between the two bells), the ringing would cease till the bottle was discharged.

This I quite discharged into the rod several phials, that were charged from the glass globe, the electric fluid streaming from the wire to the rod, till the wire would receive no spark from the finger; and, during this supply, to the rod from the phial, the bells stopped ringing; but by continuing the application of the phial wire to the rod, I exhausted the natural quantity from the inside surface of the same phials, or, as I call it, charged them negatively.

At length, while I was charging a phial by my glass globe, and repeat this experiment, my bells, of themselves, stopped ringing, and at a pause, began to ring again.—But now, when I approached the wire of the charged phial to the rod, instead of the usual stream that I expected from the wire to the rod, there was no spark; not when I brought the wire and the rod to touch; yet the bells continued ringing vigorously, which proved to me that the rod was then positively

electrified, as well as the wire of the phial, and equally so; consequently, that particular cloud then the rod was in the same positive state. This was near the end of the gust.

But this single experiment, which, however, destroys my first too general conclusion, and reduces me to this: *That the clouds of a thunder-gust are commonly in a negative state of electricity, but sometimes in a positive state.*

The latter I believe rare; for though I after the last experiment set out on a journey to Boston, from home most part of the summer, which prevented my making farther trials and observations; yet Mr. Kinnersey returning from the islands just as I left home, pursued the experiments during my absence, and informs me that he always found the clouds in the negative state.

So that, for the most part, in thunder-strokes, it is the earth that strikes into the clouds, and not the clouds that strike into the earth.

Those who versed in electric experiments, will easily conceive, that the effects and appearances must be nearly the same in either case; the same explosion, and the same flash between one cloud and another, and between the clouds and mountains, &c. the same rending of trees, walls, &c. which electric fluid does with in its passage; and the same fatal shock to animal bodies; and that pointed rods fixed on buildings, or ships, and communicating with the earth or sea, must be of the service in restoring the equilibrium silently between the earth and clouds, or in conducting a flash or stroke, if it should be, as to save harmless the house or vessel: for points have equal power to throw off, as to draw on the electric fire, and rods will conduct up as well as down.

though the light gained from these experiments makes no alteration in the practice, it makes a considerable one in the theory. And I much need an hypothesis to explain by what the clouds become negatively, before I show how they become positively electrified.

I cannot forbear venturing a few conjectures on this occasion; they what occur to me present, and though future discoveries should prove them wholly right, yet they may in the mean time be of some use, by stirring up the mind to make more experiments, and more exact disquisitions.

I conceive then, that this globe of earth and water, with plants, animals, and buildings, have diffused throughout their substance, a quantity of the electric fluid, just as much as they can contain, which is the natural quantity.

this natural quantity is not the same in all kinds of matter under the same dimensions, nor in the same kind of common matter in all circumstances; but a solid foot, for instance, of one kind of common matter, may contain more of the electric fluid than a foot of another kind of common matter; and a pound weight of the one kind of matter may, when in a rarer state, contain more of the electric fluid than when in a denser state.

For the electric fluid, being attracted by any portion of common matter, the parts of that fluid, (which have among themselves mutual repulsion) are brought so near to each other by the attraction of the common matter that absorbs them, that their repulsion is equal to the condensing power of attraction to common matter; and then such portion of common matter will absorb no more.

Bodies of different kinds having thus attracted and absorbed what I call their natural quantity, i. e. just as much of the electric fluid as is suited to their circumstances of density, rarity, and power of attracting, do not then show any signs of electricity among each other.

And if more electric fluid be added to one of these bodies, it does not enter, but spreads on the surface, forming an atmosphere; and then such body shows signs of electricity.

I have in a former paper compared matter to a sponge, and the electric fluid to water: I beg leave once more to make use of the same comparison, to illustrate further my meaning in this particular.

When a sponge is somewhat condensed by being squeezed between the fingers, it will not receive and retain much water as when in its more loose and open state.

If more squeezed and condensed, some of the water will be forced out of its pores, and flow on the surface.

If the pressure of the fingers be entirely removed, the sponge will not only receive what was lately forced out, but attract an additional quantity.

As the sponge in its rarer state will naturally absorb more water, and its denser state will naturally attract and absorb less water; so may call the quantity attracted and absorbed in either state, its natural quantity, the sponge being considered.

Now what the sponge is to water, the same is water to the electric fluid.

When a portion of water is in its common dense state, it can receive no more electric fluid than it has: if any be added, it spreads on the surface.

When the portion of water is rarified into vapour, and forms a cloud, it is then capable of receiving and absorbing a much greater quantity; there is room for each particle to have an electric atmosphere.

Thus water, in its rarified state, or in form of a cloud, will be in a negative state of electricity; it will have less than its natural quantity; that is, less than it is naturally capable of attracting and absorbing in that state.

A cloud then, coming so near the earth as to be within the striking distance, will receive from the earth a flash of the electric fluid: which flash, to supply a great extent of cloud, must sometimes contain a very great quantity of that fluid.

Or such a cloud, passing over woods of trees, may from the points and sharp edges of their moist top leaves, receive silently some supply.

A cloud being by any means supplied from the earth, may strike other clouds that have not been supplied, or not so much supplied; and those to others, an equilibrium is produced among all the clouds that are within the striking distance of each other.

The cloud thus supplied having parted with much of what it first received, may require and receive a fresh supply from the earth, or from some other cloud, which by the wind is brought into such a situation as to receive more readily from the earth.

Hence repeated and continual strokes and flashes till the clouds have all got nearly their natural quantity as clouds, or till they have descended in showers, and are united again with this terraqueous globe, their original.

Thus, thunder-clouds are generally in a negative state of electricity compared with the earth, agreeable to most of our experiments; yet by one experiment we found a cloud electrified positively. I conjecture that, in that case, each cloud, after having received a flash was, in its rare state, only in its natural quantity, became compressed by the driving winds, or other means, so that part of what it had absorbed was forced out, and formed an electric atmosphere around it in its denser state. Hence it was capable of communicating positive electricity to my rod.

To show that a body in different circumstances of dilatation and contraction is capable of receiving and retaining more or less of the electric fluid on its surface, I would relate the following experiment: I placed a clean wine glass on the floor, and on a small silver can. In the can I put about three yards of chain; one end of which I fastened a thread, which went right to the ceiling, where it passed over a pulley, and came down again to my hand, that I might at pleasure draw the chain out of the can, extending it till within a foot of the ceiling, and it gradually descended into the can again. From the ceiling, by another thread of fine raw silk, I suspended a small light lock of cotton, so as that when it hung perpendicularly, it came in contact with the side of the can. Then approaching the wire of a charged phial to the

can, I gave it a spark, which flowed round in an electric atmosphere; and the lock of cotton was repelled from the can to the distance of about nine or ten inches. The can would then receive another spark from the wire of the phial: but I gradually drew up the chain, the atmosphere of the can diminished by flowing over the rising chain, and the lock of cotton accordingly drew nearer to the can; then, if I again brought the phial wire to the can, it would receive another spark, and the cotton fly off again to its first distance; and thus, as the chain was drawn higher, the can would receive more sparks; because the can and tended chain were capable of supporting a greater atmosphere than the can with the chain gathered up into a ball. And that the atmosphere round the can diminished by raising the chain, and increased again by lowering it, is not only agreeable to reason, since the atmosphere of the chain must be drawn from that of the can, when it rises, and returned to it again when it falls; but was also evident to the eye, the lock of cotton always approaching the can when the chain was drawn up, and receding when it was let down again.

Thus we see that increase of surface makes a body capable of receiving a greater electric atmosphere: but this experiment does not, I own, fully demonstrate my new hypothesis: for the brass and silver still continue in their solid state, and are not rarified into vapour, as the water is in clouds. Perhaps some future experiments on vapourised water may set this matter in a clearer light.

One seemingly material objection arises to the new hypothesis, and it is this: if water, in its rarified state, is a cloud, requires, and will absorb more of the electric fluid than when in its dense state as water, why does it not acquire from the earth all it wants at the instant of its leaving the surface, while it is yet near, and but just rising in vapour! To this difficulty I at present give a solution satisfactory to myself: I thought, however, that I ought to state it in its full force, as I have done, and submit the whole to examination.

And I would beg leave to recommend it to the curious in the branch of natural philosophy, to repeat with care and accurate observation the experiments I have reported in this and former papers relating to positive and negative electricity, with such other relative ones as shall occur to them, that they may be certainly known whether the electricity communicated by a glass globe, be really positive. And also I would request all who may have an opportunity of observing the recent effects of lightning on buildings, trees, &c. that they consider them particularly with a view to discover the direction. But in these

animations, this one thing is always to be understood, viz. that a stream of the electric fluid passing through wood, brick, metal, &c. while it passes in quantities, the mutually repulsive power of its parts is confined and overcome by the cohesion of the parts of the body it passes through, so as to prevent an explosion; but when it comes in a quantity great it be confined by such cohesion, it explodes, and rends or fuses the body that endeavoured to confine it. If it be wood, brick, stone, or the like, the splinters will fly off on that side where there is least resistance. And thus, when a hole is struck through pasteboard by the electrified jar, if the surfaces of the pasteboard are not confined or compressed, there will be a bur all round the hole on both sides the pasteboard; but if one side be confined, so that the bur cannot be raised on that side, it will all raised on the other, which way soever the fluid was directed. For the bur round the outside of the hole, is the effect of the explosion every way from the centre of the stream, and not an effect of direction.

In every stroke of lightning, I am of opinion that the stream of the electric fluid, moving to restore the equilibrium between the cloud and the earth, does always previously passage, and mark out, as I may say, its own course, taking in way all the conductors it can find, such as metals, damp walls, moist wood, &c. and will go considerably out of a direct course, for the sake of the assistance of good conductors; and that, in this course, it is actually moving, though silently and imperceptibly, before the explosion; and among the conductors: which explosion happens only when the conductors cannot discharge it as as they receive it, by reason of their being incomplete, disjoined, too small, or of the best materials for conducting. Metalline rods, therefore, of sufficient thickness and extending from the highest part of an edifice to the ground, being of the best materials and complete conductors, will, I think, secure the building from damage, either by restoring the equilibrium so fast as to prevent a stroke, or by conducting it in the substance of the rod as the rod goes, so that there shall be no explosion but what is above point, between that and the clouds.

If be asked, what thickness of a metalline rod may be supposed sufficient? In answer, I would remark, that five large glass jars, I have described in my former charge a very quantity of electricity, which heless will be all conducted round the corner of a book, by the fine filleting of gold on the cover, it following the gold the farthest way about, rather than take the shorter course through the cover, that not being so good a conductor. Now this line of gold, extremely thin as to be

little more than the colour of gold, and an book is not in the whole an inch square, and therefore not the thirty-sixth part of a grain, according to M. Reaumur; yet is sufficient to conduct charge of five large jars, and how many more I know not. Now, I suppose a wire of a quarter of an inch diameter contain about five times as much metal as there is in that gold line, and if so, it conduct the charge of twenty-five thousand such glass jars, which is a quantity, I imagine, beyond what was contained in any stroke of natural lightning. But a rod of half an diameter would conduct four times as much of a quarter.

And with regard to conducting, though a certain thickness of metal be required to conduct a great quantity of electricity, and, the time, keep its substance firm and unseparated; and a less quantity, a very small wire for instance, will be destroyed by explosion; yet such small wire will have answered the of conducting that stroke, though it becomes incapable of conducting another. And considering the extreme rapidity with which the electric fluid moves without exploding, when it has free passage, or complete metal communication, I should think quantity would be conducted in a short time, either to or from a cloud, to restore equilibrium with the earth, by means of a very wire; and therefore thick rods should seem not necessary.—However, as the quantity of lightning discharged in one stroke, cannot well be measured, and, in different strokes, is certainly very various, in some much greater than others; and iron (the best metal for the purpose, being least apt to fuse) is cheap, it may be well enough provide a larger canal guide that impetuous blast than we may imagine necessary: for, though middling wire may be sufficient, two or three do harm. And time, with careful observations well compared, will at length point out the proper size to greater certainty.

Pointed rods erected on edifices may likewise often prevent a stroke, in the following manner: so situated so view horizontally the under of a thunder-cloud, will see it very rugged, a number of separate fragments, or petty clouds, one under another, the lowest sometimes not far from the earth. These, so many stepping stones, sit in conducting a stroke between the cloud and a building. To represent these by an experiment, take two or three locks of fine loose cotton, see of them with the prime conductor by a fine thread of two inches (which may be spun out of the same lock by fingers) another that, the third second, by like threads.—Turn globe you will see these locks extend themselves towards the table (as the lower clouds

do [] earth) being attracted by it. [] presenting a sharp point erect under the lowest, it will shrink up to the second, the second [] the first, and all together [] same conductor, where they will continue as long as the point [] under them. May not, in like manner, the small electrified clouds, whose equilibrium with the earth is [] restored by the point, rise [] to the main body, and by that [] so large a vacuum, as that the grand cloud cannot strike in that place?

These thoughts, my [] friend, are many of them crude & hasty; and if I were merely ambitious of acquiring some reputation in philosophy, I ought to keep them by me, [] corrected and improved by time, and farther experience. [] since even short hints and imperfect experiments in any [] branch of science, being communicated, have oftentimes a good effect, in exciting the attention of the ingenious to the subject, and [] become the occasion of [] exact disquisition, and more complete discoveries, you are [] liberty to communicate this paper [] whom you please; it being of more importance that knowledge should increase, than that your friend should be thought an accurate philosopher.

B. FRANKLIN.

To Peter Collinson.

Additional proof of the positive and negative state of Electricity in the Clouds.—New method of electric tanning.

PHILADELPHIA April 20 1754

SINCE September last, having been abroad on two long journeys, and otherwise much engaged, I have made but few observations on the positive and negative state of electricity in the clouds. But [] Kinnerley kept his rods and bells in good order, and has made many.

Once this winter the bells rang a long time during a fall of snow, though no thunder was heard, [] lightning [] Sometimes flashes and cracks of the electric [] between bell and bell [] so large and [] as [] be heard all over the house. but by all his observations, the clouds [] constantly in a negative state, till about six weeks ago, when [] found them once to change in a few [] from the negative to the positive. About a fortnight after that, he made another observation of the [] kind; and last Monday afternoon, the wind blowing hard at S. E. and veering round to N. [] with many thick driving clouds, there [] five or six successive changes from negative to positive, from positive to negative, [] bells stopping a [] between every change. Besides [] methods mentioned [] my paper of September last, of discovering the electrical [] of the clouds, the following may be

used. When your bells are ringing, pass a rubbed tube by [] edge of the bell, connected with your pointed rod: if the cloud is then in a negative state, the ringing will stop, if in a positive state, [] will continue, and perhaps be quicker. Or, suspend a very small cork [] by a fine silk thread, [] that [] may hang close to the edge of the rod-bell: then whenever the bell is electrified, whether positively or negatively, the little ball will be repelled, and [] distance from the bell. Have ready a round headed glass stopper of a decanter, rub [] on your side till [] electrified, then present [] cork. [] If the electricity in the [] positive, it will be repelled from the glass stopper [] well as from the bell. If negative it will fly [] the stopper.

B. FRANKLIN.

Electrical Experiments

With an attempt to ascertain for their several phenomena. Together with observations on thunder-clouds, in favour of the confirmation of Dr. Franklin's observations on the positive and negative electrical state of the clouds. John Canton M. A. and F. R. S.

MCC 1757

EXPERIMENT I

From the ceiling, or any convenient part of a room, let two cork-balls, each about the bigness of a small pea, be suspended by linen threads of eight or nine inches in length, so as to be in contact with each other. Bring the excited glass tube under the balls, [] they will be separated by it, when held at the distance of three or four feet, let it be brought nearer, and they will stand farther apart, entirely withdraw it, and they will immediately come together. This experiment may be made with very small brass balls hung by silver wire, and will succeed [] well with real wax made electrical, as with glass.

EXPERIMENT II

If two cork-balls be suspended by dry silk threads, the excited tube must be brought within eighteen inches before they will repel each other, which they will continue [] do, for [] time, after the tube is taken away.

As the [] in the first experiment are [] insulated, they cannot properly be said to be electrified, but when they hang within the atmosphere of the excited tube, they may attract and condense the electrical fluid round about them, and be separated by the repulsion of its particles. [] conjectured also, that the balls [] this time contain less [] their common share of the electrical fluid, [] account of the repelling power [] that which surrounds them; though some, perhaps, continually entering and passing through the threads. And if that be the [] the [] explain why the balls hung by silk, &c. the

second experiment, must be in a much more [] part of the atmosphere of the tube, [] they will repel each other. At the approach of an excited stick of wax to the balls, in the [] experiment, the electrical fire [] supposed to [] through the threads into the balls, and be condensed there, in its passage towards the wax; for, according to [] Franklin, excited glass [] the electrical fluid, but excited wax receives it.

EXPERIMENT V.

Let a tin tube, of four or five feet in length, and about two inches in diameter, be insulated by silk; and from one end of it let the cork-balls be suspended by linen threads. Electrify it, by bringing the excited glass tube near the other end, so as that the balls may stand an inch and a half, or two inches apart: then, [] approach of the excited tube, they will by degrees, lose their repelling power, and come into contact; and as the tube is brought still [] nearer, they will separate again to as great a distance as before: in the [] of the tube they will approach each other till they touch, and then repel [] at first. If the tin tube be electrified by wax, or the wire of a charged phial, the balls will be affected in the same manner at the approach of excited wax, or the wire of the phial.

EXPERIMENT IV.

Electrify the cork-balls [] in the last experiment by glass, and at the approach of an excited stick of wax their repulsion will be increased. The effect will be the [] if the excited glass be brought towards them, when they have been electrified by wax.

The bringing the excited glass to the end, or edge of the tin tube, in the third experiment, is supposed to electrify it positively, [] to add to the electrical fire it before contained; and therefore some will be running off through the balls, and they will repel each other. But at the approach of excited glass, which likewise emits the electrical fluid, [] discharge of it from the balls will [] diminished; or part will be driven back, by a force acting in a contrary direction: and they will come [] together. If the tube [] held [] such a distance from the balls, [] the excess of [] density of the [] round about them, above the common quantity in air, be equal to [] of the density of that within them, above the common quantity contained in cork; their repulsion will be quite destroyed. But if [] tube be brought nearer: the fluid without being more dense than within the balls, it will [] attracted by them, and they [] recede from each other again.

When [] apparatus has lost part of its natural share of this fluid, by the approach of excited wax to one end of it, [] negatively; the electrical fire [] attracted

and imbibed by the [] supply the deficiency; and that [] plentifully at the approach of excited glass; or [] body positively electrified, than before; whence the distance between the balls will [] increased, as [] fluid surrounding them [] augmented. And in general, whether by the approach or recess of any body; [] the difference between the density of the internal [] external fluid be increased [] diminished; the repulsion of [] be increased or diminished accordingly.

When the insulated tin tube [] electrified, bring the excited glass tube towards the middle of it, so as to [] nearly [] right angles with it, and the [] the end will repel each other; and the more so, as the excited tube is brought [] When it has been held a few seconds, [] the distance of about [] inches, withdraw it, and the balls will approach each other till they touch; and then separating again, as the tube is moved farther off, [] continue [] repel when [] is taken quite away. And this repulsion between the balls will be increased by the approach of excited glass, but diminished by excited wax; just as if the apparatus had been electrified by wax, after the [] described [] the third experiment.

EXPERIMENT VI.

Insulate two tin tubes, distinguished by A and B, so as to be in a line with each other, and about half an inch apart; and at the remote end of each, let a pair of cork balls be suspended. Towards the middle of A, bring [] excited glass tube, and holding it a short time, [] the distance of a few inches, each pair of balls will be observed to separate; withdraw the tube, and the balls of A will [] together, and then repel each other again, but those of B will hardly be affected. By the approach of the excited glass tube, held under [] balls of A, their repulsion will be increased: but if the tube be brought, in the [] manner, towards [] balls of B, their repulsion will [] diminished.

In the [] experiment, the [] stock of electrical matter in the tin tube is supposed to be attenuated about the middle, and to be condensed [] ends, by the repelling power of the atmosphere of the excited glass tube, when held [] it. And perhaps the tin tube may lose [] of its natural quantity of the electrical fluid, before it receives any from the glass; as that [] will [] readily run off [] the ends and edges of it, than enter [] the middle: and accordingly, when the glass tube is withdrawn, and the fluid is again equally diffused through [] apparatus, it is found to be electrified negatively: for excited glass brought under the balls will increase their repulsion.

In the sixth experiment, part of the [] driven out of one tin tube enters the other; which is found to be electrified positively, by the decreasing of the repulsion of its balls, at the approach of excited glass.

EXPERIMENT VII.

Let the tin tube, with a pair of [] at [] end, [] placed three [] least [] any part of the room, [] the air rendered very dry by [] of a fire: electrify the apparatus [] considerable degree: then touch the tin tube with [] finger, [] any other conductor, and the balls will, notwithstanding, continue [] repel each other; though not at so great a distance as before.

The air surrounding the apparatus to the distance of two [] three feet, is supposed [] contain more or [] of [] electrical fire, than its common share, as the tin tube is electrified positively, or negatively: and when very dry, may not part with [] overplus, or have [] deficiency supplied so suddenly, as the tin; [] may continue to be electrified, after that has been touched [] a considerable time.

EXPERIMENT VIII.

Having made the Torricellian vacuum about five feet long, after the manner described in the *Philosophical Transactions*, vol. xlvii. p. 470, if the excited tube be brought within a small distance of it, a light will be seen through more than half its length; which [] vanishes, if the tube be not brought nearer; but will appear again, as that is moved farther off.—This may be repeated several times, without exciting the tube afresh.

This experiment may be considered as a kind of ocular demonstration of the truth of Mr. Franklin's hypothesis; that when the electrical fluid is condensed on one side of thin glass, it will be repelled from the other, if it meets with no resistance. According to which, at the approach of the excited tube, the fire is supposed to be repelled from the inside of the glass surrounding the [], and to be carried through the [] of mercury; but as the tube is withdrawn, [] fire is supposed [] []

EXPERIMENT IX.

Let [] excited stick of wax, of two feet and a half in length, and about [] inch in diameter, [] near [] middle. Excite the [] tube, and draw it [] one [] of it; then, turning a little about its axis, let the tube be excited again, and drawn over the same half; and let this operation be repeated several times; then will that half destroy [] repelling power of balls electrified by glass, and the other half will increase it.

By this experiment it appears, that wax also may be electrified positively and nega-

tively. And it [] probable, [] all bodies whatsoever may have the quantity they contain of the electrical fluid increased or diminished. The clouds, I have observed, by a great number of experiments, to be some [] positive, and others in a negative [] electricity. For [] cork balls, electrified by them, will sometimes close [] the approach of excited glass; and at other times be separated to a greater distance. And this change I have known [] happen five or six times in [] than half an hour; the balls coming together each time, [] remaining in contact a few seconds, before they repel each other again. [] may likewise easily be discovered, by a charged phial, whether the electrical fire be drawn out of the apparatus by the negative cloud, or forced into [] by a positive [] and by which [] it be electrified, should that cloud either part with its overplus, or have its deficiency supplied suddenly, the apparatus [] lose its electricity: which is frequently observed to be the case, immediately after a [] of lightning. Yet when the [] is very dry, the apparatus will continue to be electrified for ten minutes, or a quarter of [] hour, after the clouds have passed the zenith; and sometimes till they appear more than half-way towards the horizon. Rain, especially when the drops are large, generally brings down the electrical fire; and hail, in summer, I believe never fails. When the apparatus was last electrified, it was by the fall of thawing snow, which happened so lately, as on the 12th of November; that being the twenty-sixth day, and sixty-first time it has been electrified, since it was first set up; which was about the middle of May. And [] Fahrenheit's thermometer was but seven degrees above freezing, it is supposed the winter will not entirely put a stop to observations of this sort. At London no more than two thunder storms have happened during the whole summer; and the apparatus was sometimes [] strongly electrified in one of them, that the bells, which have been frequently rung by the clouds, so loud as to be heard in every room of the house (the doors being open) were silenced by the almost [] stream of dense electrical fire, between each bell and [] brass ball, which would [] it to strike.

I shall conclude this paper, already too long with the following queries:

1. May not air, suddenly rarified, give electrical fire to, and air suddenly condensed, receive electrical fire from, clouds [] vapours passing through it?

2. Is not the [] *boracis*, the flashing of electrical fire from positive, towards negative clouds [] a great distance, through the upper part of the atmosphere, where the resistance is least?

Experiments made in pursuance of those made by Mr. Canton, dated December 6, 1753; with explanations, by Benjamin Franklin.—Read at the Royal Society, Dec 13, 1753.

PHILADELPHIA, 1755, 1756.

PRINCIPLES.

I. ELECTRIC atmospheres, that flow round non-electric bodies, being brought each other, do readily mix and unite into one atmosphere, but remain separate, and repel each other.

This is plainly seen in suspended cork-balls, and other bodies electrified.

II. An electric atmosphere only repels another electric atmosphere, but will also repel the electric contained in the substance of a body approaching it; and without joining or mixing with it, force it to other parts of the body that contained it.

This is shown by some of the following experiments.

Bodies electrified negatively, deprived of their natural quantity of electricity, repel each other, (or appear to do so, by mutual receding) well those electrified positively, or which have electric atmospheres.

This is shown by applying the negatively charged wire of a phial to two cork-balls, suspended by silk threads, and many other experiments.

PREPARATION.

Fix a tassel of fifteen or twenty threads, three inches long, one end of a tin prime conductor (nine about five feet long, and four inches diameter) supported by silk lines.

Let the threads be a little damp, but not wet.

1.

Pass the excited glass tube near the other end of the prime conductor, as to give it sparks, and the threads diverge.

Because each thread, as well as the prime conductor, has acquired electric atmosphere, which repels and is repelled by the atmospheres of the other threads: if those several atmospheres would readily mix, the threads might unite and hang in the middle of one atmosphere, common to them all.

Draw the tube afresh, and approach the prime conductor therewith, crossways, near that end, but high enough to give sparks; and the threads will diverge a little more.

Because the atmosphere of the prime conductor is pressed by the atmosphere of the excited tube, and driven towards the end where the threads are, by which each thread acquires more.

Withdraw the tube, and they close much.

They close as much, and no more; because

the atmosphere of the glass tube not having mixed with the atmosphere of the conductor, withdrawn entire, having to, diminution from it.

Bring the excited tube under the tuft of threads, and they will close a little.

They close, because the atmosphere of the glass tube repels their atmosphere, and drives part of them back on the prime conductor.

Withdraw it, and they will diverge as much.

For the portion of atmosphere which they had lost returns them again.

Excite the glass tube, and approach the prime conductor with it, holding it across, near the end opposite that which the threads hang, at the distance of five or six inches. Keep it there a few seconds, and the threads of the tassels diverge. Withdraw it, and they will close.

They diverge, because they have received electric atmospheres from the electric matter before contained in the substance of the prime conductor; but which is now repelled and driven away, by the atmosphere of the glass tube, from the parts of the prime conductor opposite and nearest to that atmosphere, and forced out upon the surface of the prime conductor at its other end, and upon the threads hanging thereto. Were it any part of the atmosphere of the glass tube that flowed over and along the prime conductor to the threads, and gave them atmospheres (as in the case when a spark is given to the prime conductor from the glass tube) such part of the tube's atmosphere would have remained, and the threads continue to diverge; but they close withdrawing the tube, because the tube takes with it all its atmosphere, and the electric matter, which had been driven out of the substance of the prime conductor, and formed atmospheres round the threads, thereby permitted to return to its place.

Take a spark from the prime conductor near the threads when they are diverged a little more, and they will close.

For by doing you take away their atmospheres, composed of the electric matter driven out of the substance of the prime conductor, as aforesaid, by the repellency of the atmosphere of the glass tube. By taking this spark you rob the prime conductor of part of its natural quantity of electric matter, which part is taken is supplied by the glass tube, for when that afterwards withdrawn, it takes with it the whole atmosphere, and leaves the prime conductor electrified negatively, by the next operation.

Then withdraw the tube, and they will open again.

For now the electric matter in the prime conductor, returning ■■■ equilibrium, or equal diffusion, in all parts of ■■■ substance, ■■■ the prime conductor having lost some of its natural quantity, the threads connected with it lose part of theirs, and so are electrified negatively, and therefore repel each other, by *Pr. III.*

Approach the prime conductor with the tube near the same place as ■■■ first, and they will close again.

Because the part of their natural quantity of electric fluid, which they had lost, is now restored to them again, by the repulsion of the glass tube forcing that fluid to them from other parts of the prime conductor; so they ■■■■ in their natural state.

■■■■■ it, and they ■■■ open again.

For what had been restored to them, is now taken from them again, flowing back into the prime conductor and leaving them once more electrified negatively.

Bring the excited tube under the threads, and they will diverge more.

Because more of their natural quantity is driven from them into the prime conductor, and thereby their negative electricity increased.

■■■■■ III.

The prime conductor ■■■ being electrified, bring the excited tube under the tassel, and the threads will diverge.

Part of their natural quantity is thereby driven out of them into the prime conductor, and they become negatively electrified, and therefore repel each other.

Keeping the tube in the ■■■■ place with one hand, attempt to touch the threads with the finger of the other hand, and they will recede from the finger.

Because the finger being plunged into the atmosphere of the glass tube, as well as the threads, part of ■■■ natural quantity is driven back through the hand and body, by that atmosphere, and the finger becomes, ■■■ well as the threads, negatively electrified, and so repels, and ■■■ repelled by them. To confirm this, hold a slender light lock of cotton, two ■■■ three inches long, near a prime conductor, that is electrified by ■■■ glass globe, or tube. You will see the ■■■ stretch itself out towards the prime conductor. Attempt to touch it with the finger of the other hand, and it will be repelled by the finger. Approach it with a positively charged wire of a bottle, and it will fly to the wire. Bring it near a ■■■ tively charged ■■■ of a bottle, ■■■ will recede from that wire in the same manner that it

did from the finger; which demonstrates the finger to be negatively electrified, as well as the lock of cotton so situated.

Turkey killed by Electricity.—Effect of a shock on the Operator in making the Experiment.

As Mr. Franklin, in a former letter to Mr. Collinson, mentioned his intending ■■■ try the power of a very strong electrical shock upon a turkey, that gentleman accordingly has been so very obliging ■■■ to send an account of it, which is to the following purpose.

He made first several experiments on fowls, and found, that two large thin glass jars gilt, holding each abo ■■■ six gallon ■■■ sufficient, when fully charged, to kill common hens outright; but the turkeys, though thrown into violent convulsions, and then lying as dead for some minutes, would recover in less than ■■■ of an hour. However, having added three other such to the former two, though not fully charged, he killed ■■■ turkey of about ten pounds weight, and believes that they would have killed a much larger. He conceited, as himself says, that the birds killed in ■■■ manner ■■■ uncommonly tender.

In making these experiments, he found, that a man could, without great detriment, bear a much greater shock than he ■■■ imagined; for he inadvertently received the stroke of two of these jars through his arms and body, when they were very near fully charged. It seemed ■■■ him an universal blow throughout the body, from head to foot, and was followed by a violent quick trembling in the trunk, which went off gradually, in a few seconds. ■■■ was ■■■ minutes before he could recollect his thoughts, so ■■■ to know what ■■■ the matter; for ■■■ did not see the flash, though his eye was on the spot of the prime conductor, from whence it struck the back of his hand; nor did he hear the crack, though the bystanders said ■■■ a loud one: nor did he particularly feel the stroke on his hand, though he afterwards found it ■■■ raised ■■■ swelling there, of the bigness of ■■■ a pistol-bullet. His arms and the back of the neck felt somewhat numbed the remainder of the evening, and his breast ■■■ for ■■■ week after, as if it had been bruised. From this experiment ■■■ the danger, ■■■ under the greatest caution, ■■■ the operator, when making these experiments with large jars; for ■■■ is not to be doubted, but several of these fully charged would as certainly, by increasing them, in proportion ■■■ the size, ■■■ a man, as they ■■■ did a turkey.

N. B. The original of this letter, which was read ■■■ the Roy ■■■ Society, has been ■■■

Dr. Lining ■ Charleston.

Differences in the Qualities of the Glass.—Ac-
tion of Domien, ■ Electrician and Travel-
ler.—Conjectures respecting the pores of
Glass.—Origin of the author's idea of draw-
ing down Lightning.—No satisfactory Hypo-
theses respecting the manner ■ which
become electrified.—Six men knocked down at
once by ■ electrical shock.—Reflections ■
spirit of incension.

PHILADELPHIA, March 18, 1788.

I ■ you enclosed ■ paper containing some ■ experiments I have made, in pursuance of those by Mr. Canton that ■ printed with my last letters. I hope these, with my explanation of them, will afford you some entertainment.*

In answer ■ your several inquiries. The tubes ■ globe we ■ here, ■ chiefly made here. The glass has a greenish cast, ■ clear and hard, and, I think, better for electrical experiments than the white glass of London, which is not so hard. There are certainly great differences in glass. A white globe I had made here some years since, would never, by any means, be excited. Two of my friends tried it, as well ■ myself, without success. At length, putting it on an electric stand, a chain from the prime conductor being in contact with it, I found it had the properties of a non-electric; for I could draw sparks from any part of it, though it was very clean and dry.

All I know of Domien, is, that by his own account he was a native of Transylvania, of Tartar descent, but a priest of the Greek church: he spoke and wrote Latin very ■ dily and correctly. He set out from his own country with an intention of going round ■ world, as much as possible by land. He travelled through Germany, France, and Holland, to England. Resided some time at Oxford. From England he came to Maryland; thence went to New England; returned by land to Philadelphia; and from hence travelled through Maryland, Virginia, and North Carolina to you. He thought ■ might be of service to him in his travels ■ know something of electricity. I taught him the use of the tube; how to charge the Leyden phial, and some other experiments. He wrote to me from Charleston, ■ he had lived eight hundred miles upon electricity, it ■ been meat, drink, and clothing to him. ■ last letter ■ me ■ I think, from Jamaica, desiring me ■ send the tubes you mention, to meet ■ at the Havanna, from whence he expected to get a passage to La Vera Cruz; designed travelling over land through Mexico ■ Aca-pulco; thence ■ get a passage to Manila, and so through China, India, Persia, and Turkey, home ■ ■ country; proposing

to support himself chiefly by electricity. ■ strange project! But he was, as you observe, a very singular character. I ■ sorry the tubes did not get to the Havanna in time for him. If they are still in being, please to ■ for them, ■ accept of them. What became of him afterwards I have ■ heard. He promised to write to me as often as he could on his journey, and as soon as he ■ get home after finishing his tour. It is now seven years since he was here. If he is ■ in New Spain, ■ you imagine from ■ loose report, I suppose it must be that they confine him there, and prevent his writing; but I think it ■ likely ■ he may be dead.

The questions you ■ the pores of glass, I cannot answer otherwise, than that I know nothing of their nature; and suppositions, however ingenious, are often more ■ takes. My hypothesis, that they were smaller near the middle of the glass, too small ■ ad- ■ the passage of electricity, which could pass through the surface till it ■ near the middle, was certainly wrong; for ■ after I ■ written that letter. I did, in order to confirm the hypothesis (which indeed I ought to have done before I wrote it) make an experi- ■ I ground away five sixths of the thickness of the glass, from the side of one of my phials, expecting that the supposed denser part being so removed, the electric fluid might course through the remainder of the glass, which I had imagined more open; but I found myself mistaken. The bottle charged as well after the grinding as before. I am now, as much as ever, at a loss to know how or where the quantity of electric fluid, on the positive side of the glass, is disposed of.

As to the difference of conductors, there is not only this, that ■ will conduct electricity in small quantities, and yet do not conduct it fast enough to produce the shock; but even among those that will conduct a shock, there are ■ that do it better than others. Mr. Kinneraley has found, by a very good experiment, that when the charge of a bottle ■ opportunity of passing two ways, i. e. straight through a trough of water ten feet long, and six inches square; or round about through twenty feet of wire, it passes through the wire, and not through the water, though that is the shortest course; the wire being the better conductor. When the wire is taken away, it passes through the water, ■ may be felt by a hand plunged in the water; but it ■ be ■ in the water when the ■ is used ■ the ■ time. Thus, though a small phial containing water will give a smart shock, one containing the same quantity of mercury will give one much stronger, the mercury being the better conductor; while one containing oil only, will ■ give any shock ■ all.

* See the preceding article, ■ 322, for the paper here referred to.

Your question, how I came ~~last~~ to think of proposing the experiment of drawing down the lightning, in order to ascertain the sameness with the electric fluid, I cannot answer better than by giving you an extract from minutes I used to keep of the experiments I made, with memorandums of such as I purposed to make, the reasons for making them, and the observations that arose upon them, from which minutes my letters were afterwards drawn. By this extract you will see that the thought was not so much "an out-of-the-way one," but that it might have occurred to an electrician.

"Nov. 7, 1749. Electrical fluid agrees with lightning in these particulars: 1. Giving light. 2. Colour of the light. 3. Crooked direction. 4. Swift motion. 5. Being conducted by metals. 6. Crack or noise in exploding. 7. Subsisting in water & ice. 8. Rending bodies it passes through. 9. Destroying animals. 10. Melting metals. 11. Firing inflammable substances. 12. Sulphur-smell.—The electric fluid is attracted by points.—We do not know whether this property is in lightning.—But since they agree in all the particulars wherein we can already compare them, it is not probable they agree likewise in this! Let the experiment be made."

I wish I could give you any satisfaction in the article of clouds. I am still at a loss about the manner in which they become charged with electricity; no hypothesis I have yet formed perfectly satisfying me. Some time since, I heated very hot, a brass plate two feet square, and placed it on an electric stand. From the plate a wire extended horizontally four or five feet, and, at the end of it, hung, by linen threads, a pair of cork balls. I then repeatedly sprinkled water over the plate, that it might be raised from it in vapour, and that if the vapour either carried off the electricity of the plate, or left behind it that of the water. (one of which I supposed it must do, if, like the clouds, it became electrified itself, either positively or negatively) I should perceive and determine it by the separation of the balls, and by finding whether they were positive or negative; but no alteration was made at all, nor could I perceive that the steam itself electrified, though I have still a suspicion that the steam was not fully examined, and I think the experiment should be repeated. Whether the first of electrified clouds is positive or negative, if I could find the cause of that, I should be at no loss about the other, for either is easily deduced from the other, and its state is easily produced by the other. A strongly positive cloud may drive off of a neighbouring cloud much of its natural quantity of the electric fluid, and, passing by it, leave it in a negative state. The same way, a strongly negative

cloud may occasion a neighbouring cloud to draw into itself some other additional quantity, and, passing by it, leave it in a positive state. How these effects may be produced, you will easily conceive, on perusing and considering the experiments in the enclosed paper: and from them too it appears probable, that every change from positive to negative, or from negative to positive, that, during a thunder-gust, we see in the cork-balls annexed to the apparatus, is not owing to the presence of clouds in the positive state, but often to the absence of positive or negative clouds, that, having just passed, leave the rod in the opposite state.

The knocking down of the six men was performed with two of my large jar-jar-jar charged. I laid one end of my discharging rod upon the head of the first; he laid his hand upon the head of the second; the second his hand on the head of the third, and so to the last, who held, in his hand, the chain that was connected with the outside of the jar. When they were thus placed, I applied the other end of my rod to the prime conductor, and they all dropped together. When they got up, they all declared they had not felt any stroke, and wondered how they came to fall: nor did any of them either hear the crack, or see the light of it. You suppose it a dangerous experiment; but I had once suffered the same myself, receiving, by accident, an equal stroke through my head, that struck me down, without hurting me: and I had seen a young woman who was about to be electrified through the feet (for in discharging receive a greater charge through the head, by inadvertently stooping forward to look at the placing of her feet, till her forehead (as she was very well) touched my prime conductor: she dropped, but instantly got up again, complaining of nothing. A person so struck, sinks down doubled, or folded together as it were, the joints losing their strength and stiffness at once, so that he drops on the spot where he stood, instantly, and there is no previous staggering, nor does he ever fall lengthwise. Too great a charge might, indeed, kill a man, but I have not yet seen any hurt done by it. It would certainly, as you observe, be the cause of all deaths.

The experiment you have heard so imperfect an account of, is merely this: I electrified a silver pint can, on an electric stand, and then lowered into it a cork ball of about an inch diameter, hanging by a silk string, till the cork touched the bottom of the can. The cork was not attracted to the inside of the can as it would have been to the outside, and though it touched the bottom, yet when drawn out, it was not found to be electrified by touching, as it would have been by touching the can. The fact is singular. You require a reason; I do not know it. Perhaps you

may discover it, and then you will be no good as to communicate it to me.* I find a frank acknowledgment of one's ignorance is not only the easiest way to get rid of a difficulty, but the likeliest way to obtain information, and therefore I practise it: I think it an honest policy. Those who [] to be thought to know every thing, [] so undertake to explain every thing, often remain long ignorant of many things that others could and would instruct [] in, if they appeared less conceited.

The treatment your friend has met [] so common, that no man who knows what the world is, and ever has been, should expect to escape it. There [] every [] number of people, who being totally destitute of any inventive faculty themselves, do [] readily conceive that [] may [] it: they think of inventions as of miracles; there might [] such formerly, but they [] ceased. With those, every one who offers [] invention is deemed a pretender: he [] it from some other country, or from [] book: [] man of their [] acquaintance: [] who has no more sense than themselves, could not possibly, [] their opinion, have been the inventor of any thing. They [] confirmed too, in these sentiments, by frequent instances of pretensions to invention, which vanity is daily producing. That vanity too, though an [] invention, is, at the same time, the pest of inventors. Jealousy and envy deny the merit or the novelty of your invention; but vanity, when the novelty and merit are established, claims it for its own. The smaller your invention is, the [] mortification you receive in having the credit of it disputed with you by [] rival, whom the jealousy and envy of others are ready to support against you, at least so far as to make the point doubtful. It is not in itself of importance enough for a dispute; [] one would think your proofs and [] worth their attention: and yet, if you do not dispute the point, and demonstrate you [] right, you not only lose the credit of being in that instance ingenious, but you suffer the disgrace of not being ingenious; not only of being a plagiarist, but of being a plagiarist for trifles. Had the [] been greater [] would have disgraced you less; for men have [] so contemptible an idea of him that robs for gold on the highway, as of him that can pick pockets for half-pence and farthings. Thus, through [] envy, jealousy, and the vanity of competitors [] fame, the origin of many of the ordinary inventions, though produced within but a few centuries past, [] involved in [] and uncertainty. We [] know [] whom

we are [] for the compass, and for spectacles, nor have even paper [] printing, that record every thing else, [] able to preserve with certainty [] name and reputation of their inventors. One would not, therefore, of [] faculties, [] qualities of the mind, wish, for a friend, [] child, that [] should have that of invention. For his attempts [] benefit mankind in [] way, however well imagined, if they do [] succeed, expose him, though very unjustly, [] general ridicule [] contempt; and, [] they do succeed, to envy, robbery, and abuse. R. FRANKLIN.

Mons. [] bord, Paris.

Beccaria's work on Electricity.—Sentiments of Franklin on pointed Rods, not fully understood in Europe.—Effect of Lightning in the Church of Newbury, in New England.—Remarks on the subject.—Read at the Royal Society, Dec. 14, 1775.

PHILADELPHIA, JUNE [] 1776.

You desire my opinion of Père Beccaria's Italian book.* I have read it with much pleasure, and think it one of the best pieces [] the subject that I have seen in any language. Yet as to the article of water-spouts, I am not at present of his sentiments; though I must own with you, that he has handled it very ingeniously. Mr. Collinson has my opinion of whirlwinds [] water-spouts at large, written some time since. I know [] whether they will be published; if not, I will get them transcribed for your perusal.† It does not appear to me that Père Beccaria doubts of the absolute impermeability of glass in the sense [] it; for the instances he gives of holes made through glass by the electric stroke [] such [] we have all experienced, and only show that the electric fluid could [] pass without making a hole. In the [] manner we say, glass [] impermeable [] water, and yet a stream from a fire-engine will force through the [] glass panes of a []. An to the effect of points in drawing the electric [] from cloud, and thereby securing [] ings, &c. which, you say, he seems to doubt, I must [] I think he only speaks modestly [] judiciously. I find I have been but partly understood in that matter. I have mentioned it in several of my letters, and except once, always in the alternative, viz. [] pointed rods erected on buildings, and communicating with the moist earth, would either prevent a stroke, or, if [] prevented, would conduct it, so as that the building should suffer [] no damage. Yet whenever my opinion is examined in Europe, nothing is considered but

* Dr. F. [] thought, that, possibly, the mutual repulsion [] opposite sides of the [] might prevent [] accumulating of its electric [] spheres upon them, [] occasion it to stand [] on the []. But recommended it to the further examination of the curious.

* This work is written conformable to Dr. Franklin's theory, upon artificial and natural electricity, which compares the two parts of it. It was printed in Italian, at Turin, in 4to. 1753: between the two parts is a letter to the Abbe Nollet, in defence of Dr. Franklin's system.

† These papers will be found in a subsequent part of this volume.

the probability of those rods *presenting* a stroke or explosion, which is only a *part* of the use I proposed for them; and the other part, their conducting a stroke, which they may happen not to prevent, seems to be totally forgotten, though of equal importance and advantage.

I thank you *for* communicating *me* *the* *de* *fon's* relation of the *effect* of lightning at Dijon, *on* *the* *24th* of June last. In return, give me leave *to* relate an instance I lately *heard* of the *same* *being* *the* *24th* of Newbury, in New England, *on* *the* *24th* November last, I was shown the effect of lightning on their church, which *was* *struck* *a* few months before. The steeple *was* *a* square tower of wood reaching seventy feet up from the ground *on* *the* place where *the* *bell* *was* hung, *on* *the* which *was* a taper spire, of wood likewise, reaching seventy feet higher, to the vane of the weathercock. Near the bell was fixed an iron hammer to strike the hours: and from the tail of the hammer a wire went down through a small gunlet-hole in the floor that the bell stood upon, and through a second floor in like manner; then horizontally under and *the* *plastered* ceiling of *the* *second* floor, till it came near a plastered wall; then down by *the* *side* of that wall to *a* clock, which stood about twenty feet below the bell. The wire was not bigger than *a* knitting-needle. The spire *was* *split* all to pieces by the lightning, and the parts flung in all directions over the square in which the church stood, so that nothing remained above the bell.

The lightning passed between the hammer and the clock in the above mentioned wire, without hurting either of the floors, or having any effect upon them (except making the gunlet-holes, through which the wire passed, *a* little bigger), and without hurting the plastered wall, *on* *any* part of the building, so far as the aforesaid wire and the pendulum wire of the clock extended: which latter wire was about the thickness of *a* goose-quill. From the end of the pendulum, down quite to the ground, the building *was* *exceedingly* rent and damaged, and *the* *distance* in the foundation-wall *was* *out*, and thrown *the* *distance* of twenty or thirty feet. *The* *part* of the above mentioned long small wire, between the clock and the hammer, could be found, except about two inches that hung to *the* *tail* of the hammer, and about *as* much that *was* *fastened* to the clock; the rest being exploded, and its particles dissipated *in* *smoke* and air, *in* *gunpowder* *by* *the* *same* fire, and had only *a* *smutty* track on the plastering, three *or* *four* inches broad, darkest in *the* *middle*, *and* *fainter* towards the edges, all along the ceiling, under which it passed, *and* *down* the wall. These *was* *the* effects and appearances; on which I would only make the few following remarks, viz.

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1. That lightning, *in* *its* passage through a building, will leave wood to pass as far as it can in metal, and not enter the wood again *the* *conductor* of metal ceases.

And the same I have observed in other instances, as to walls of brick or stone.

2. The quantity of lightning *that* *passed* through this steeple *was* *have* been very great, by its effects on the lofty spire above *the* *bell*, and *the* *square* tower all below the end of the clock pendulum.

3. Great *was* *the* quantity *that* *it* *was* *conducted* by a small wire and a clock pendulum, without the least damage *to* *the* *building* so far as they extended.

4. The pendulum rod being of a sufficient thickness, conducted the lightning without damage to itself; but the small wire *was* *utterly* destroyed.

5. Though the small wire *was* *itself* destroyed, yet it had conducted the lightning with safety to the building.

6. And from the whole it *was* *probable*, that if even such a small wire had been extended from the spindle of the vane to the earth, before the storm, no damage would have been done to the steeple by that stroke of lightning, though the wire itself had been destroyed.

To Peter Collinson.

PHILADELPHIA, Nov. 23. 1753

DEAR FRIEND,—In my last, via Virginia, I promised to send you per next ship, a small philosophical packet: but now having got the materials (old letters and rough drafts) before me, I fear you will find it a great *one*. Nevertheless, *as* I *am* *like* to have a few days' leisure before this ship sails, which I may *have* again in a long time, I shall transcribe the whole, and send it; for you will be under no necessity of reading it all at once, but may take *a* *little* at a time, *and* *then* of a winter evening. When you happen to have nothing else to do (if that *was* *happens*) it may *be* *your* *amusement*.*

B. FRANKLIN.

* These letters and papers are a philosophical correspondence between Dr. Franklin and some of *the* *Americans*.[†] Mr. Collinson communicated them to the Royal Society, where they *were* *at* different meetings during the year 1754. Dr. Franklin having particularly requested that they might not be printed, some of them were inserted in the transactions. He had at that time an intention of revising them, and pursuing some of the inquiries further; but finding that he was not likely to have sufficient leisure, he was at length induced, imperfect as they were, to present their publication, as some of *the* *hints* they contain might possibly be useful to others in their philosophical researches. Note in Mr. Collinson's edition.

† As some of these papers are upon subjects not immediately connected with electricity, we have taken such pages from *the* *order* in which they were placed by Collinson, and transferred *the* *parts* of this

Extract of a letter from Mr. Bowdoin of Boston to Benjamin Franklin, concerning the crooked direction and the source of lightning, and the swiftness of the electric fire.

Boston, Dec. 31, 1752.

THE experiments Mr. K. have been greatly pleasing to me of people that have seen them; and I hope, by the time he returns to Philadelphia, his way will turn to good account. His experiments are very curious, and I can prove effectually your doctrine of electricity; that it is a real element, annexed to, and diffused among all bodies we are acquainted with; that it is in nothing from lightning, the effects of both being similar, and their properties, so far as they are known, the same, &c.

The remarkable effect of lightning on iron, lately discovered, in giving it the magnetic virtue, and the same effect produced on small needles by electrical fire, is a further convincing proof that they are both the same element; but, which is very unaccountable. Mr. K. tells me, it is necessary to produce this effect, that the direction of the needle and the electric fire should be north and south; from either to the other, and that just so far as they deviate therefrom, the magnetic power in the needle is less, till their direction being at right angles with the north and south, the effect entirely ceases. We made at Faneuil Hall, where Mr. K. is apparatus, several experiments, and give some small needles the magnetic virtue; previously examining, by putting them in water, on which they will be supported, whether or not they had any of that virtue; and I think we found all of them to have a small degree of it, their points turning to the north; we did nothing to do then but to invert the poles, which accordingly we did, by sending through them the charge of two large glass jars; the eye of the needle turning to north, as the point before had done: that end of the needle which the fire is thrown upon, Mr. K. tells me always points to the north.

The electrical fire passing through air in the crooked direction of lightning.* This appearance I endeavour to account for thus: as an electric fire, therefore there must be a mutual repulsion betwixt air and electrical fire. A column or cylinder of air, having the diameter of its base equal to the diameter of the electrical spark, intervenes that part of the body which the spark is taken from, and of the body it aims at. The spark acts upon this column, and is acted upon by it, more strongly than any neighbouring portion of air.

The column, being thus acted upon, becomes more dense, and, being more dense repels the spark more strongly; its repelleny being in proportion to its density: having acquired, by being condensed, a degree of repelleny greater than natural, it turns the spark out of its straight course; the neighbouring air, which must be denser, and therefore a smaller degree of repelleny, giving it a more ready passage.

The spark, having a direction, must now act on, or strongly repel the column of air lies in that direction, consequently the condensed column in the same direction as the former, when the spark must again change its course, which course will be thus repeatedly changed, till the spark reaches the body that attracted it.

To this account objection occurs; that as air is very fluid and elastic, and so endeavours to spread itself equally, the supposed accumulated air within the column aforesaid, would be immediately diffused among the contiguous air, and circulate to fill the space it was driven from: and consequently that the said column, the greater density of which the phenomenon is supposed to depend, would not repel the spark more strongly than the neighbouring air.

This might be an objection, if the electrical fire was so sluggish and inactive as air. Air takes a sensible time to diffuse itself equally, as is manifest from winds which often blow for a considerable time together from the same point, and with a velocity in the greatest storms, not exceeding, as it is said, sixty miles an hour: but the electric fire propagated instantaneously, taking up no perceptible time in going very great distances. It must then be an inconceivable short time in its progress from an electrified to an unelectrified body, which, in the present case, can be but a few inches apart: but this small portion of time is not sufficient for elasticity of the air to exert itself, and therefore the column aforesaid must be in a denser state than its neighbouring air.

About the velocity of the electric fire more is below, which perhaps may fully obviate this objection. We have several experiments. Experiments will obviate all objections, and confound the hypothesis. The electric spark, if the foregoing be true, will pass through a vacuum in a right line. To try this, let a wire be fixed perpendicularly on the plate of an air pump, having a leaden ball on its upper end; let another wire, passing through the top of a receiver, have on each end a leaden ball; let the leaden balls within the receiver, when put on the air pump, be within two or three inches of each other; the receiver being exhausted, the spark given from a charged phial to the upper wire will pass through the air, nearly approaching to a vacuum, to the

* This is most easily observed in large strong sparks taken at some inches distance.

lower wire, I suppose in a right line, or nearly so. A small portion of air remaining in the receiver, which might be entirely exhausted, may possibly cause it to deviate a little, but perhaps not sensibly from a right line. The spark might be made to pass through air greatly condensed, which perhaps would give it a more crooked direction. I have not had opportunity to make any experiments of this sort, nor knowing of an air-pump at Cambridge, but you may easily make them. If these experiments answer, I think the crooked direction of lightning will be also accounted for.

With respect to your letters on electricity: your hypothesis in particular for explaining the phenomena of lightning is very ingenious. That clouds are highly charged with electrical fire, and that their communicating it to those which have less, mountains and other eminences, makes it visible and audible, when it is denominated lightning and thunder, is highly probable; but that the sea, which you suppose the grand source of it, can collect it, I think admits of a doubt; for though the sea may be composed of salt and water, an electric per se and non-electric, and though the friction of electrics per se and non-electrics, will collect that fire, yet it is only under certain circumstances which I do not admit. For it is necessary, that the electrics per se and non-electrics rubbing one another, should be of such substances as will adhere to, or incorporate with each other. Thus a glass sulphur sphere turned in water, and a friction between them, will not collect any fire; nor, I suppose, would a sphere of salt revolving in water: the water adhering to, and incorporating with those electrics per se, granting that the friction between salt and water would collect the electrical fire; that fire, being extremely subtle and active, would immediately communicate, either to those lower parts of the sea from which it was drawn, and so only perform quick revolutions; or be communicated to the adjacent islands or continent, and so be diffused instantaneously through the general mass of the earth. I am, instantaneously, for the great distances we can conceive within the limits of our globe, that of the two most opposite points, will be a sensible time in passing through; therefore it seems a little difficult to conceive how there can be an accumulation of electrical fire upon the surface of the sea, or how the vapours arising from the sea should have a greater share of that fire than other vapours. The progress of the electrical fire is so amazingly swift, seems evident from an experiment you yourself (not out of choice) made, when two or three large glass jars were charged through your body. You neither heard the crack, nor felt the

stroke, nor, which is more extraordinary, saw the light; which gave you just reason to conclude, that it was swifter than sound, than animal sensation, even light itself. Now light (as astronomers have demonstrated) is about six minutes passing from the sun to the earth; a distance, they say, of more than eighty millions of miles. The greatest rectilinear distance within the compass of the earth is about eight thousand miles, equal to its diameter. Supposing then, that the velocity of the electric fire be the same as that of light, it will go through a space equal to the earth's diameter in about two sixtieths of the second of a minute. It is inconceivable then, that it should be accumulated upon the sea, in its present state, which is a non-electric, must give the fire an instantaneous passage to the neighbouring shores, and they convey it to the general mass of the earth. But such accumulation is still more inconceivable when the electrical fire has but few feet depth of water to penetrate, to return to its place from whence it is supposed to be collected.

Your thoughts upon these remarks I shall receive with a great deal of pleasure. I take notice that in the printed copies of your letters, several things are wanting which are in the manuscript you sent me. I understand by your son, that you had writ, or were writing, a paper on the effect of electrical loadstones, needles, &c. which I would ask your favour of a copy of, as well as of any other papers on electricity, written since I had the manuscript, for which I repeat my obligations to you.

J. BOWDOIN.

J. Bowdoin, Boston.

Observations on the subjects of the preceding letter — Reasons for supposing the sea to be the grand source of Lightning — Reasons for doubting this hypothesis — Improvement in a globe for raising the Electric Fire — Read at the Royal Society, May 27, 1760

PHILADELPHIA, Jan. 1732.

I am glad to learn, by your favour of the 21st inst, that Mr. Kinnerley's lectures have been acceptable to the gentlemen of Boston, and like to prove serviceable to himself.

I thank you for the acquaintance and re-
gagement you have so kindly given my fellow-citizen.

I send you enclosed an extract of a letter containing the substance of what I observed concerning the communication of magnetism by needles by electricity. The minutes I took at the time of the experiments are mislaid. I am very little acquainted with the doctrine of magnetism. Dr. Gawin Knight, inventor of the steel magnets, has wrote largely on that subject, but I have not yet had leisure to peruse his writings with the attention necessary to become master of his doctrine.

Your explication of the crooked direction of lightning appears to me both ingenious and solid. When we can account as satisfactorily the electrification of clouds, I think that branch of natural philosophy will be nearly complete.

The air, undoubtedly, obstructs the motion of the electric fluid. Dry air prevents the dissipation of an electric atmosphere, the denser the more, as in cold weather. I question whether such an atmosphere can be retained by a body in the electrical fluid requires a non-electric communication the wire every part of the charged glass; otherwise, being dry and clean, and fill with air only, it charges slowly, and discharges gradually, by sparks, without a shock: exhausted of air, the electric fluid is so open and free between the inserted wire surface of the glass, that it charges as readily, shocks smartly as if filled with and I doubt not, but that in the experiment you propose, the sparks would not only be near strait vacuum, but strike at a greater distance than in the open air, though perhaps there would be a loud explosion. As soon as I have a little leisure, I will make an experiment, and send you the result.

My supposition, that the sea might possibly be the grand source of lightning, arose from the common observation of its luminous appearance in the night, on least motion; an appearance observed in fresh water. Then I knew that the electric fluid may be pumped up out of the earth, by the friction of a glass globe, a non-electric cushion; and that notwithstanding the surprising activity and swiftness of that fluid, and the non-electric communication between all the parts of the cushion and the earth, yet quantities would be snatched up by the revolving surface of the globe, thrown the prime conductor, and dissipated in air. How this was done, and why that subtle active spirit did not immediately return again from the globe, into some part other of the cushion, and so into the earth, was difficult to conceive; but whether from its being opposed by a current rising upwards to the cushion, from whatever other that it returns is evident fact. Then I considered the separate particles of water as so many hard spherules, capable of touching the salt only in points, and imagined a particle of salt could therefore no more be wet by a particle of water, than a globe by a cushion; that there might therefore be such a friction between these originally constituent particles of and as in a sea of globes and cushions; each particle the surface might the some particles of the universally much finer, and more subtle electric fluid, and forming to itself an atmosphere of those particles,

be repelled then generally electrified surface of the sea, and fly away with them into the air. I thought too, that possibly the great mixture of particles electric per se. in the water, might, in some degree, impede the swift motion and dissipation of the electric fluid through it shores, &c.—But having since found, that salt is the water of an electric fluid lessens the shock: and having endeavoured in vain to produce that luminous appearance from a mixture of salt and agitated: and observed, that even the water will not produce it after some hours standing in a bottle; I suspect it proceed from some principle yet unknown to us (which I would gladly make experiments to discover, if I lived near the sea) and I grow doubtful of my former supposition, and more ready to allow weight to that objection (drawn from the activity of the electric fluid, and the conduct) which you have indeed stated with great strength and clearness.

In the mean time, before I part with this hypothesis, let us think what to substitute in its place. I have sometimes queried whether the friction of the air, electric per in violent winds, among trees, and against the surface of the earth, might not pump up, so many glass globes, quantities of the electric fluid, which the rising vapours might receive from the air, and retain in the clouds: they form? on which I should be glad to have your sentiments. An ingenious friend of mine supposes the land-clouds more likely to be electrified than the sea-clouds. I send his letter for your perusal, which please to return me.

I have nothing lately on electricity, nor observed any thing new that is material, my time being much taken up with other affairs. Yesterday I discharged four jars through a fine wire, tied between two strips of glass: the wire part melted, and the rest broke into small pieces from half an inch long, to half a quarter of an inch. My globe raises the electric fire with greater in much greater quantities, by the means of a wire extended the cushion, to the iron pin of a pump handle behind house, which communicates by the pump spear with the water in the well.

By this post I send to you, who is in that way, some meteorological observations and conjectures, and desire him communicate them to you, they you some amusement, and I know you will look over them with a candid eye. By throwing our occasional thoughts on paper, we readily discover the defects of our opinions, or we digest them better and find new arguments to support them. This I sometimes practise: but such pieces are fit only to be seen by

R. FRANKLIN.

J. [redacted] Benjamin Franklin.

Effect of Lightning on Captain Waddell's Compass, and the Dutch Church at New York.—
Read at the Royal Society, June 3, 1752.

Reader, [redacted] 1752.

I HAVE received your favour of the 24th of January past, enclosing [redacted] extract from your letter to Mr. Collinson, and [redacted] letter [redacted] yourself, which I have read with a great deal of pleasure, and am much obliged [redacted] you for. Your extract confirms [redacted] correction Mr. Kinnorsley made [redacted] few [redacted] ago, of a mistake I was [redacted] respecting the polarity given [redacted] needles by electrical fire, "that the end which receives the fire always points north;" and "that the needle being situated [redacted] and west will not have [redacted] polar direction." You find, however, the polarity strongest when the needle [redacted] shocked lying north and south; weakest when lying [redacted] and west; which makes it probable that the communicated magnetism [redacted] less, [redacted] the needle varies from a north and south situation. As to the needle of captain Waddell's compass, if its polarity was reversed by the lightning, the effect of lightning and electricity, [redacted] regard of that, seems dissimilar; for a magnetic needle in a north and south situation (as the compass needle was) instead of having [redacted] power [redacted] ed, or even diminished, would have it confirmed or increased by the electric fire. But perhaps the lightning communicated to [redacted] nails in the binnacle (where the compass [redacted] placed) the magnetic virtue, which might disturb the compass.

Thus I have heard was the case; if so, the [redacted] dissimilarity vanishes: but this remarkable circumstance (if it took place) I should think would not be omitted [redacted] captain Waddell's account.

I am very much pleased that the explanation I sent you, of the crooked direction of lightning, meets with your approbation.

As to your supposition about the [redacted] of lightning, the luminous [redacted] of the sea [redacted] the night, and the amixture between the friction of the particles of salt and water, as you considered them in their original separate state, and the friction of the globe and cushion, very naturally [redacted] you to the ocean, as the grand source of lightning: but the [redacted] tivity of lightning, or the electric element, and the fitness of [redacted] to conduct it, together with the experiments you mention of [redacted] and water, seem to make against it, [redacted] to prepare the way for some other hypothesis. Accordingly you propose a new one, which [redacted] very curious, and not so liable, I think, [redacted] objections [redacted] the former. [redacted] there is not, as yet, I believe, a sufficient variety of experiments [redacted] establish any theory, though [redacted] most hopeful of any I have heard of.

The [redacted] which [redacted] discharge of your

four glass jars [redacted] upon a [redacted] wire, tied between two strips of glass, puts me in mind of a very similar one of lightning, that I [redacted] read at [redacted] New York, October, 1750, a few days [redacted] I left Philadelphia. In company with number of gentlemen, I went to take a [redacted] of the city from the Dutch church steeple, which is a clock about twenty [redacted] twenty-five feet below the bell. From the clock went a wire through two floors, to the clock [redacted] near the bell, the holes in the floor [redacted] the wire being perhaps about a quarter of an inch diameter. We were told, that in the spring of 1750, the lightning struck the clock hammer, and descended along the wire [redacted] the clock, melting in its way several spots of the wire, from three to nine inches long, through [redacted] third of its substance, till coming within a few feet of the lower end, it melted the wire [redacted] through, in several places, so that it fell down in several pieces: which spots and pieces we [redacted]. When it got to the end of the wire, it flew off to the hinge of a door, shattered the door, and dissipated. In its passage through the holes of the floors it did not do the least damage, which evidences that wire is a good conductor of lightning (as it is of electricity) provided it be substantial enough, and might, in this case, had it been continued to the earth, have conducted it without damaging the building.*

Your information about your globe's raising the electric fire in greater quantities, by [redacted] of a wire extended from the cushion to the earth, will enable me, I hope, [redacted] remedy a great inconvenience I have been under, to collect the fire with the electrifying glass I use, which is fixed in a very dry room, three stories from the ground. When you send your meteorological observations to [redacted], I hope I shall have the pleasure of seeing them.

J. BOWDOIN.

Proposal of an experiment to measure the time taken up by an Electric Spark in moving through any given space. By James Alexander, of New York.—Read at the Royal Society, Dec. 26, 1756.

If I remember right, the Royal Society made [redacted] experiment to discover the velocity

* The wire mentioned in this [redacted] repaired by a small brass [redacted]. In the [redacted] of [redacted] lightning again [redacted] steeple, [redacted] from the clock hammer near [redacted] bell, it [redacted] chain [redacted] for [redacted] done the wire, [redacted] the same hinge and again shattered the same door. In its passage through the same holes of the same floors, it did no damage to [redacted] floors, nor to the building during [redacted] extent of the chain. [redacted] chain [redacted] If it was destroyed, being partly scattered [redacted] fragments of two or three [redacted] method [redacted] together, [redacted] partly blown [redacted] or [redacted] forced to smoke, and dissipated [redacted] for [redacted] account of the same effect [redacted] lightning [redacted] a [redacted] Newbury, p. 206. The steeple, [redacted] repaired, [redacted] guarded by an iron [redacted] on red, extending from the foot of [redacted] vane [redacted] of the building [redacted]

ing, I suppose, attracted the contrary way by the electricity of greater density in the behind it. But, as this opinion seems to deviate from electrical orthodoxy, I should be glad to see these phenomena better accounted for by your superior and more penetrating genius.

Whether the electricity in the air, in clear dry weather, of the density the height of two or three hundred yards, as near the surface of the earth, may be satisfactorily determined by your old experiment of the kite. The twine should have throughout a very small wire in it, and the ends of the wire, where the several lengths united, ought to be tied down with a waxed thread, to prevent their acting in the of points. I have tried the experiment twice, when the as dry as have it, and clear that a cloud could seen, and found the twine each time in a small degree electrified positively. The kite had three metallic points fixed to it: one on the top, and one on each side. That twine was electrified, appeared by the separating of two cork balls, suspended on the twine by fine flaxen threads, just above where the silk tied to it, and sheltered from the wind. That twine electrified positively, proved, by applying it the wire of a charged bottle, which caused the balls to separate further, without first coming nearer together. This experiment showed, the electricity in the air, those times, was above than below. But that be always the case; for you know we have frequently found the thunder-clouds in the negative state, attracting electricity from the earth: which state, it is probable, they are always in when first formed, and till they have received a sufficient supply. How they come afterwards, towards the latter end of the gust, to be in the positive state, which is sometimes the subject for further inquiry.

After the above experiments with the wooden needle, I formed a cross, of two pieces of wood, of equal length, intersecting each other at right angles in the middle, hung it horizontally upon a central pin, and set a light horse with his rider, upon each extremity; whereupon, the being nicely balanced, and each urged on by an electrified point of a pair of spurs, I was entertained with an electrical horse-race.

I have contrived an electrical air thermometer, and made several experiments with it, have afforded much satisfaction and pleasure. It is extremely sensible of any alteration in the of the included air, fully determines that controverted point, there heat in electric fire? By the enclosed draught, fol-

lowing description, you will readily apprehend the construction of it. (See Plate.)

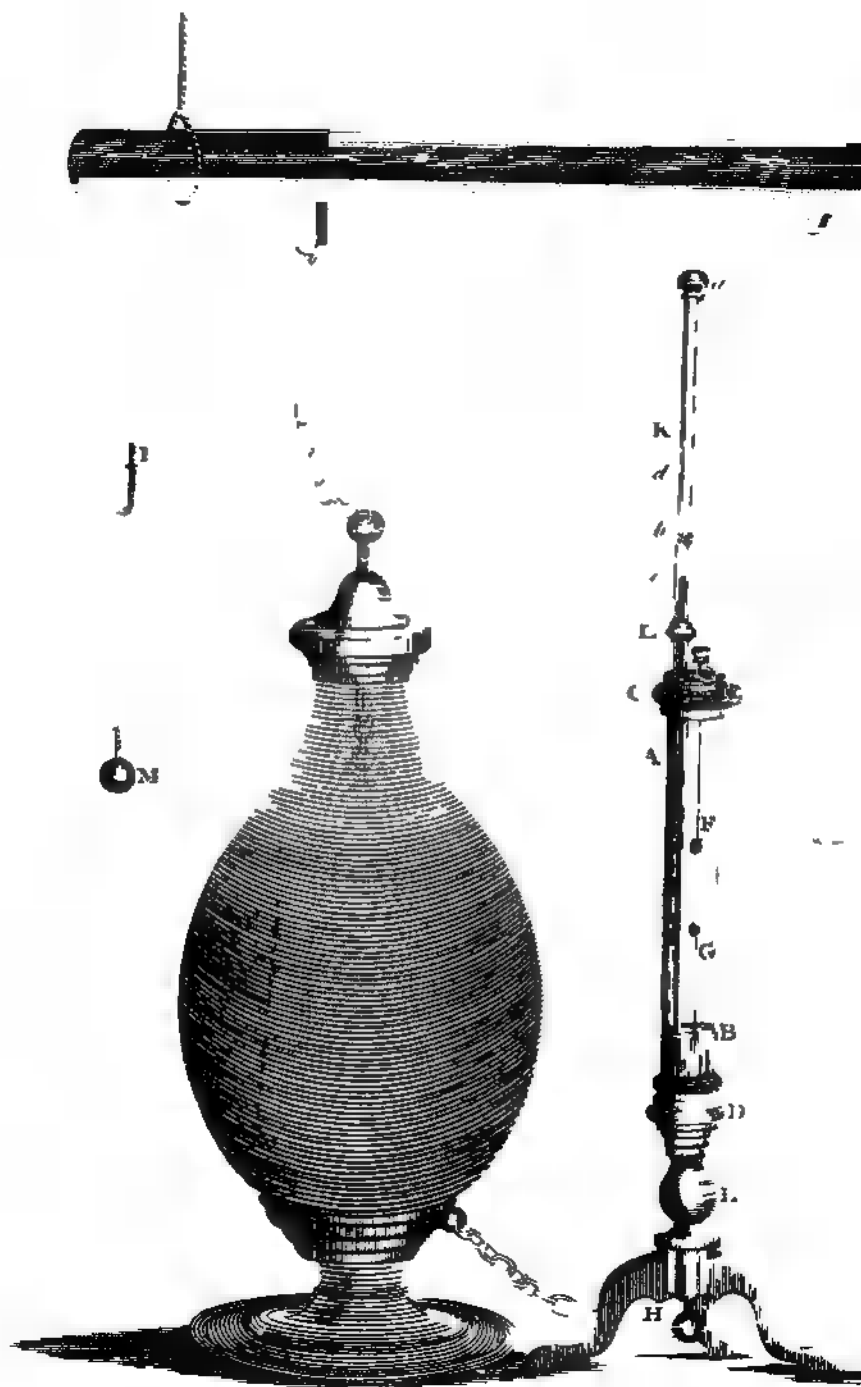
A B is a glass tube, about eleven inches long, and one inch diameter in the bore. It has a brass ferrule cemented on each end, with a top and bottom part, C D, to be screwed on, air-tight, taken pleasure. In the centre of the bottom part D, is a male screw which goes into a brass nut, in the mahogany pedestal E. The wires F and G are for the electric fire to pass through, darting from one to the other. The wire G extends through the pedestal to H, and may be raised and lowered by means of a male screw on it. The wire F may be taken out, and the hook I be screwed into its place. I is a glass tube, with a small bore, open at both ends, mounted in the brass tube L, which screws into the top part C. The lower end of the tube K is immersed in water, coloured with cochineal, at the bottom of the tube A B. (I used, first, coloured spirits of but in one experiment I made, it took fire.) On the top of the tube is cemented, for ornament, a brass ferrule, with a head screwed on it, which has a small air-hole through its side, at a. The wire b, is a small round spring, that embraces the tube K, so as to stay wherever it is placed. The weight M is to keep strait whatever may be suspended in the tube A B, on the hook I. Air must be blown through the tube K, into the tube A B, till enough is intruded raised, by its elastic force, a column of the coloured water in the tube K, up to thereabouts; and then, the gage-wire h, being split down to the top of the column, the thermometer is ready for

I set the thermometer on an electric wand with the chain fixed to the prime conductor, and kept it well electrified a considerable time; but this produced no sensible effect, which shows, that the electric fire, when in a state of rest, has less heat than the air, and other matter wherein it resides.

When the wires F and G are in contact, a large charge of electricity went through them that of my five and thirty bottles containing above thirty square feet of covered glass, will produce no rarification of the air included in the tube A B; which shows that the wires are not heated by the fire's passing through them.

When the wires are about two inches apart, the charge of a three pint bottle, darting from one to the other, rarifies the air very evidently; which shows, I think, that the electric fire must produce heat in itself, as well as the air, by its rapid motion.

The charge of of glass jars (which will contain about five gallons and a half, wine measure) darting from wire wire, will, by the disturbance it gives the air, be



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pulling it in all directions, raise the column in the tube K, up to d, or thereabouts; the charge of the above-mentioned case of bottles will raise it to the top of the tube.—Upon the air's coalescing, the column, by gravity, instantly subsides, till it is in equilibrium with the rarefied air; it then gradually descends the air cools, and where it stood before. By carefully observing what height above the gage-wire h, the descending column first stops, the degree of rarefaction is discovered, which, in great explosions, is very considerable.

I hung in the thermometer, successively, a strip of wet writing paper, a wet flaxen and woollen thread, a blade of green grass, a filament of green wood, a fine silver thread, a very small brass wire, and a strip of gilt paper; and found that the charge of the above-mentioned glass jar, passing through each of these, especially the last, produced heat enough to rarefy the air very perceptibly.

I then suspended, out of the thermometer, a piece of small harpsichord wire, about twenty-four inches long, with a pound weight at the lower end, and sent the charge of the of five and thirty bottles through it, whereby I discovered a new method of wire-drawing. The wire red hot the whole length, well annealed, and above an inch longer than before. A second charge melted it; it parted near the middle, and measured, when the ends were put together, four inches longer than at first. This experiment, I member, you proposed me before you left Philadelphia; but I never tried it till now.—That I might have doubt of the wire's being hot as well red, I repeated the experiment on another piece of the wire encompassed with a goose-quill, filled with loose grains of gunpowder; which took fire as readily as if it been touched with a red hot poker. Also tinder, tied to another piece of the wire, kindled by it. I tried a wire about three times as big, but could produce no such effects with that.

Hence it appears that the electric fire, though it has no sensible heat when in a state of rest, will, by its violent motion, and the resistance it meets with, produce heat in other bodies when passing through them, provided they be small enough. A large quantity will pass through a large wire, without producing any sensible heat; when the same quantity passing through a very small one, being there confined to a narrow passage, the particles crowding closer together, and meeting with greater resistance, will make it red hot, and melt it.

Hence lightning does melt metal by a cold fusion, as formerly supposed; but, when it passes through the blade of a sword, if the quantity be very great, it may heat the point so as to melt it, while the broadest

and thickest part may not be sensibly warmer than before.

And when trees or houses are set on fire by the dreadful quantity which a cloud, or the earth, sometimes discharges, must not the heat, by which the wood is kindled, be generated by the lightning's violent motion, through the resisting combustible matter?

If lightning, by its rapid motion, produces heat in itself; as well as in other bodies (and it does I think is evident from some of the foregoing experiments made with the thermometer) then its sometimes singeing the hair of animals killed by it, may easily be accounted for. And the reasons of its not always doing so, may, perhaps, be this: the quantity, though sufficient to kill a large animal, may sometimes not be great enough, or not have met with resistance enough, to become, by its motion, burning hot.

We find that dwelling-houses, struck with lightning, seldom are set on fire by it: but when it passes through barns, with hay or straw in them, or store-houses, containing large quantities of hemp, or such like matter, they seldom, if ever, escape a conflagration: which may, perhaps, be owing to such combustibles being apt to kindle with a less degree of heat than is necessary to kindle wood.

We had four houses in this city, and a wharf, one of the wharfs, struck and damaged by lightning last year. One of the houses was struck twice in the same storm. But I have the pleasure to inform you, that your method of preventing such terrible disasters, has, by a fact which had like to have escaped our knowledge, given a very convincing proof of its great utility, and is in higher repute with us than ever.

Hearing, a few days ago, that Mr. William West, merchant in this city, suspected that the lightning in one of the thunder-storms last year had passed through the iron conductor, which he had provided for the security of his house; I waited on him, to inquire what ground he might have for such suspicion. Mr. West informed me, that his family and neighbours were all stunned with a very terrible explosion, and that the lightning and crack were seen and heard at the same instant. Whence he concluded, that the lightning must have been very near, and, as no house in the neighbourhood had suffered by it, that it must have passed through his conductor. Mr. White, his clerk, told me that he was sitting at the time, by a window about two feet distant from the conductor, leaning against the brick wall with which it was in contact; and that he felt a smart sensation, an electric shock, in that part of the body which touched the wall. Mr. West further informed me that a person of undoubted veracity assured him, that, being in the door of an opposite house, on the other side of We-

(which you know is but narrow) he the lightning diffused over the pavement which then very wet with to the distance of two or three yards from the foot of the conductor; and that another person of very good credit told him, that he being a few doors off on the other side of the street, saw the lightning above, darting in such direction that it appeared to him to be directly over that pointed rod.

Upon receiving this information, and being desirous of further satisfaction, there being no of the lightning he discovered in the conductor, as far as could examine it below, I proposed to Mr. West our going to the top of the house, to examine the pointed rod, assuring him, that if the lightning had passed through it, the point must have been melted; and to our great satisfaction, we found it so. This iron rod extended in height about nine feet and a half above a stack of chimneys to which it was fixed (though I suppose three or four feet would have been sufficient.) It was somewhat more than half an inch diameter in the thickest part, and tapering to the upper end. The conductor, from the lower end of it to the earth, consisted of square iron nail rods, not much above a quarter of an inch thick, connected together by interlinking joints. It extended down the cedar roof of the eaves, and from thence down the wall of the house, four story and a half, to the pavement in Water-street, being fastened to the wall in several places by small iron hooks. The lower end was fixed to a ring in the top of an iron stake that drove about four or five feet into the ground.

The above-mentioned iron rod had a hole in the top of it, about two inches deep, where in was inserted a brass wire, about two lines thick, and when first put there, about ten inches long, terminating in a very acute point; but now its whole length was no more than inches and a half, and the top very blunt. Some of the metal appears to be missing, the slenderest part of the wire being, as I suspect, consumed into smoke. But some of it, where the wire was a little thicker, being only melted by the lightning, sunk down, while the fluid state, and formed a rough sicular cap, lower on one side than the other, round the upper end of what remained, and became intimately united therewith.

It is all the damage that Mr. West sustained by a terrible stroke of lightning; a most convincing proof of the great utility of this method of preventing its dreadful effects. Surely it will be thought as expedient to provide conductors for the lightning, as for the rain.

Mr. West was so good as to make me a present of the melted wire, which I keep as my great curiosity. I am long for the pleasure of showing it to you. In the mean time, I beg

your acceptance of my best representation I can give of it, which you will find by the side of the thermometer, drawn in its full dimensions it now appears. The dotted lines above intended to show the form of the wire before the lightning melted it.

And now, sir, I most heartily congratulate you on the pleasure you must have in finding your great and well grounded expectations so far fulfilled. May this method of security from the destructive violence of one of the most awful powers of nature meet with such further success, as to induce every good and grateful heart to bless God for this important discovery! May the benefit thereof be diffused over the whole globe! May it extend to the latest posterity of mankind, and make the name of FRANKLIN, like that of NEWTON, immortal.

EBEN. KINNERSLEY.

To Mr. Kinnersley.

Answer to some of the foregoing subjects—It is long the Leyden bottle may be kept charged—Heated glass rendered permeable by the electric fluid.—Electrical attraction and repulsion—Reply to other subjects in the preceding paper.—Numerous ways of kindling fire—Explosion of water—Knoxis and point

London, February 20 1782

I RECEIVED your ingenious letter of the 12th of March last, and thank you cordially for the account you give me of the new experiments you have lately made in electricity.—It is a subject that still affords me pleasure, though of late I have not much attended to it.

Your second experiment, in which you attempted, without success, to communicate positive electricity by vapour ascending from the electrified water, reminds me of one I formerly made, to try if negative electricity might be produced by evaporation only. I placed a large heated brass plate, containing four or five square feet on an electric stand, a rod of metal, about four feet long, with a bullet at its end, extended from the plate horizontally. A light lock of cotton, suspended by a fine thread from the ceiling, hung opposite to, and within an inch of the bullet. I then sprinkled the heated plate with water, which arose fast from it in vapour. If vapour should be disposed to carry off the electrical, as it does the fire from bodies, I expected the plate would, by losing some of its natural quantity, become negatively electrified. But I could not perceive, by any motion in the cotton, that it was at all affected: nor by any separation of small cork balls suspended from the plate, could it be observed that the plate was in any degree electrified.

Mr. Canton here has also found, that two cups, set on electric stands, and filled one with boiling, the other with cold water, and

equally electrified, continued equally ■■■ withstanding ■■■ plentiful evaporation from ■■■ hot water. Your experiment and his agreeing, shows another remarkable difference between electric and common fire. For the latter quite most readily the body ■■■ contains it, where water, ■■■ any other fluid, is evaporating from the surface of that body, and escapes with the vapour. Hence the method, ■■■ in ■■■ the east, of cooling liquors, by wrapping ■■■ bottles round with ■■■ wet cloth, and exposing them to the wind. Dr. Cullen, of ■■■ gh, has given ■■■ experiments of cooling by evaporation; and I was present at ■■■ made by Dr. Hadley, then professor of chemistry ■■■ Cambridge, when, by repeatedly wetting the ball of a thermometer with spirit, and quickening the evaporation by the blast of a bellows, the mercury fell from 63, the state of warmth ■■■ the ■■■ men at 10 to 7, which is 22 degrees below freezing, and, accordingly, from some water mixed with the spirit, or from the breath of the assistants, or both, we gathered in small spirula ■■■ the ball, to the thickness of near a diameter of an inch. To such a degree ■■■ the ■■■ at the fire it before contained, which, as I imagine, took the opportunity of escaping, in company with the evaporating particles of the spirit, by adhering to those particles.

Your experiments of the Florence flask, and boiling water, is very curious. I have repeated it, and found it to succeed as you describe it, in two flasks out of three. The third would not charge when filled with either hot or cold water. I repeated it, because I remembered I had once attempted ■■■ make an electric bottle of a Florence flask, filled with cold water, but could not charge it at all; which I then imputed to some imperceptible cracks in the glass, extremely thin bubbles, of which that glass is full, and I concluded none of that kind would do. But you have shown ■■■ my mistake.—Mr. Wilson had formerly acquainted us, that red hot glass would conduct electricity; but that so small a degree of heat, as that communicated by boiling water, would so open the pores of extremely thin glass, ■■■ to suffer the electric fluid freely ■■■ use was not before known. Some experiment, similar to yours, have, however, been made here, before the receipt of your letter, of which I shall ■■■ give you ■■■ account.

I formerly had ■■■ opinion that a Leyden bottle, charged and then sealed hermetically, might retain its electricity for ever, but having ■■■ some suspicion that possibly that subtle fluid might, by slow imperceptible degrees, soak through the glass, and in time escape, I requested ■■■ of my friends, who had ■■■ for doing it, to make trial, whether after ■■■ months, the charge of a bottle so sealed would be sensibly dimi-

nished. Being at Birmingham, 1st September, 1760, Mr. Bolton of that place opened a bottle ■■■ had been charged, and its long tube neck hermetically sealed in January preceding. On breaking off the end of the neck, and introducing ■■■ wire into it, we found ■■■ possessed of a considerable quantity of electricity, which was discharged by ■■■ snap and spark. This bottle had lain ■■■ seven months ■■■ a shelf, in a closet, ■■■ contact with bodies that would undoubtedly have carried off ■■■ its electricity, if ■■■ could have come readily through the glass. Yet ■■■ the quantity ■■■ infected by the discharge ■■■ apparently so great ■■■ might have been expected from a bottle of that size well charged. ■■■ doubt remained whether part had escaped while the neck ■■■ sealing, or ■■■ by degrees, soaked through the glass. ■■■ an experiment of Mr. Canton's, ■■■ which such a bottle was kept under water a week, without having its electricity ■■■ the least impaired, seems to show that when the glass is cold, though extremely thin, the electric fluid is well retained by it. As that ingenious and accurate experimenter made a discovery, like yours, of the effect of heat in rendering thin glass permeable by that fluid, it is but doing him justice to give you his account of it. ■■■ his own words, extracted from ■■■ letter to me, in which he communicated it, dated October 31, 1760, viz.

"Having procured some thin glass balls, of about an inch ■■■ half in diameter, with stems, or tubes, of eight or nine inches in length, I electrified them, ■■■ positively on the inside, and others negatively, after the manner of charging the Leyden bottle, and sealed them hermetically. Soon after I applied the naked balls to my electrometer, and could not discover the least ■■■ of their being electrical, but holding them before the fire, at the distance of six or eight inches, they became strongly electrical ■■■ a very short time and more ■■■ when they were cooling. These ■■■ will, every time they ■■■ heated, give the electrical fluid to ■■■ take ■■■ from other bodies, according to the plus or minus state of it within them. Heating them frequently, I ■■■ will sensibly diminish their power; but keeping one of them under water ■■■ which did not appear in the least degree to impair. That which I kept under water, was charged on the 23^d of September last, was several times heated before it ■■■ kept in water, ■■■ has been heated frequently since, and yet ■■■ still retains its virtue ■■■ a very considerable degree. The breaking two of my balls accidentally gave ■■■ an opportunity of measuring their thickness, which I found ■■■ be between seven and eight pc. ■■■ in a thousand of an inch

"■■■ down feather. ■■■ a thin glass ball, hermetically sealed, will not be affected by the application of ■■■ excited tube, or the wire of ■■■ charged phal, unless the ball be consider-

ably heated; and if a glass pane be heated till it begins to grow soft, and in that state be held between the wire of a charged phial, and the discharging wire, the course of the electrical fluid will not through the glass, but on the surface, round by the edge of it."

By this last experiment of Mr. Canton's, it appears, that though by a moderate heat, thin glass becomes, in degree, a conductor of electricity, yet, when of the thickness of a pane, it is not, though in a state melting, so good a conductor as to pass the shock of a discharged bottle. There are other conductors which suffer the electric fluid to pass through them gradually, and yet will not conduct a shock. For instance, a quire of paper will conduct through its whole length, so as to electrify a person, who, standing wax, presents the paper to an electrified prime conductor; but it will not conduct a shock even through its thickness only; hence shock either fails, or passes by rendering a hole in the paper. Thus will pass water gradually, but a stream from a fire engine would either be stopped by it, or hole through it.

It should seem, that to make glass permeable the electric fluid, the heat should proportioned the thickness. You found the heat of boiling water, which but 210, sufficient render the thin glass Florence permeable even to a shock.—Lord Charles Cavendish, by a very ingenious experiment, found the heat of requisite render thicker glass permeable to the current.

"A glass tube, (See the *Platr*) of which the part C B was solid, wire thrust each end, reaching to B and C.

"A small wire tied at D, reaching to the floor, in order to carry off any electricity that might run along upon the tube.

"The bent part was placed in an iron pot; filled with iron filings; a thermometer was also put into the filings; a lamp placed under the pot; the whole supported upon glass.

"The wire A being electrified by a machine, before the heat was applied, the corks separated, at first upon the principle of the Leyden phial.

"But after the part C B of the tube was to 600, the corks continued separate, though you discharged the electricity by touching the wire E, the electrical chine continuing in motion.

"Upon letting the whole cool, the remain thermometer sunk 100."

 wished, that this noble philosopher communicate of his experiments to the world, as he makes many, and with great accuracy.

You know I have always looked upon and

mentioned the equal repulsion in cases of positive and of negative electricity, as a phenomenon difficult explained. I have times, too, been inclined, with you, resolve into attraction; but that attraction seems in itself as unintelligible repulsion, there are some appearances of repulsion that I so easily explain by attraction; this for one instance. When the pair of corks are suspended by flaxen threads, from the end of the prime conductor, if you bring a rubbed glass tube the conductor, without touching it, you the separate, being electrified positively; yet you have communicated electricity the conductor, for, if you had, it would have remained there, after withdrawing the tube; but the closing of the balls immediately thereupon, shows that the conductor no more left in it than its natural quantity. Then again approaching the conductor with the rubbed tube, if, while the are separated, you touch with a finger that end of the conductor which they hang, they will together again, as being, with that part of the conductor, brought to the state with your finger, i. e. the natural state. But the other end of the conductor, which the tube is held, is not in that state, but in the negative state, as appears on removing the tube; for then part of the tural quantity left the end near the balls, leaving that end supply what is wanting at the other, the whole conductor found to be equally the negative not this indicate that the electricity of the rubbed tube had repelled the electric fluid, which was diffused in the conductor while in its natural state, and forced to quit the end to which the balls suspended? I own I find it difficult to account for its quitting that end on the approach of the rubbed tube, but on the supposition of repulsion: for, while the conductor in the same with the air, i. e. the natural it does not seem easy to suppose, that an attraction suddenly take place between the air and the natural quantity of the electric fluid in the ductor, to draw it to, and accumulate it the end opposite to that approached by the tube; since bodies, possessing only their tural quantity of fluid, usually seen to attract each other, or to affect mutually the quantities of electricity each contains.

There are likewise appearances of repulsion in other parts of nature. Not mention the violent force with which the particles of water, heated a certain degree, separate from each other, or those of gunpowder, when with the smallest of fire, there is the seeming repulsion between poles of the magnet, a body containing a subtle moveable respects analogous to the electric fluid. two magnets are suspended by strings, as that their poles of



same denomination are opposite to each other, they will separate, and continue so; or if you lay a magnetic steel bar on a smooth table, approach it with another parallel to it, the poles of both the same position, the first will recede from the second as to avoid the contact, and may thus be pushed (or at least appear to be pushed) off the table. Can this be ascribed to the attraction of any surrounding body or matter drawing them asunder, or drawing the one away from the other? If not, repulsion exists in nature, and in magnetism, why may it not exist in electricity? We should not, indeed, multiply causes in philosophy without necessity; and the greater simplicity of your hypothesis would recommend it to me, if I could see that all appearances would be solved by it. But I find, I think I find, the two causes more convenient than one of them alone.—Thus I might solve the circular motion of your horizontal stick, supported on a pivot, with two pins at their ends, pointing contrary ways, and moving in the same direction when electrified, whether positively or negatively: when positively, the air opposite to the points being electrified positively, repels the points, when negatively, the air opposite to the points being also, by their being electrified negatively, attraction takes place between the electricity in the air behind the heads of the pins, and the negative pins, and so they are, in this case, drawn in the direct, in that in the other they were driven.—You I am willing to meet you halfway, and in compliance I have not met with in our brother Nollet, or any other hypothesis-maker, and therefore may value myself a little upon it, especially as they say I have some ability in defending even the wrong side of a question, when I think it to take in hand.

What we give as an established law of the electric fluid, “That quantities of different densities mutually attract each other, in order to restore the equilibrium,” is, I think, not well founded, or at least not well expressed. Two large cork balls, suspended by silk strings, and both well and equally electrified, separate to a great distance. By bringing into contact with one of them another ball of the same size, suspended likewise by silk, you will take from it half its electricity. It will then, indeed, hang at a distance from the other, but the full and the half quantities will not appear to attract each other, that is, the balls will not come together. Indeed, I do not know any proof we have, that one quantity of electric fluid is attracted by another quantity of fluid, whatever difference there may be in their densities. And, in nature, a mutual attraction between parcels of any kind of matter, it would be strange if it should subsist generally while those parcels are unequal, and cease

when more matter of the same kind was added to the smallest parcel, so as to make it equal to the biggest. By all the laws of attraction in matter, that we are acquainted with, the attraction is stronger in proportion to the mass of the masses, and in proportion to the difference of the distances. I should rather think the law would be, “That the electric fluid is attracted strongly by all other matter that we know of, while the parts of that fluid mutually repel each other.” Hence its being equally diffused (except in particular circumstances) throughout all other matter. But this you jokingly call “electrical orthodoxy.” It is so with some present, but not with all; and, perhaps, may not always be orthodoxy with any body. Opinions are continually varying, where we cannot have mathematical evidence of the nature of things: and they must vary. Not that variation without its use, since it is a more thorough discussion, whereby we often disengage true knowledge increased, and its principles become better understood and more firmly established.

Air should have, as you observe, “its share of the common stock of electricity, as well as glass, and, perhaps, all other electrica per se.” But I suppose, that, like them, it does not easily part with what it has, or receive more unless when mixed with some non-electric, as moisture for instance, of which there is some in our driest air. This, however, is only a supposition; and your experiment of restoring electricity to a negatively electrified person by extending his arms upwards into the air with a needle between his fingers, the point of which light may be seen in the night, is, indeed, a curious one. In this town the air is generally moister than with us, and here I have seen Mr. Canton electrify the air in one room positively, and in another, which communicated by a door, he has electrified the air negatively. The difference was easily discovered by his cork balls, as he passed out of one room into another.—Pere Beccaria, too, has a pretty experiment, which shows that air may be electrified. Suspending a pair of small light balls, by flaxen threads, to the end of his prime conductor, he turns his globe some time, electrifying positively, the balls diverging and continuing separate all the time. Then he presents the point of a needle to his conductor, which gradually drawing off the electric fluid, the balls approach each other and touch, before all is drawn from the conductor; opening again a more is drawn off, and separating nearly as wide as at first, when the conductor is reduced to the natural state. By this it appears, that when the balls are together, the air surrounding the balls is just as much electrified as the conductor at that time; and more than the conductor, when that is reduced to its

natural state. For the balls, though in natural state, will diverge, when the air that surrounds them is electrised plus or minus, as well as when that is in its natural state and they are electrised plus or minus themselves. I foresee that you will apply this experiment to the support of your hypothesis, and I you may make a good deal of it.

It was a curious inquiry of yours, Whether the electricity of the air, in clear dry weather, be of the same density as the height of two or three hundred yards, as near the surface of the earth?—and I am glad you made the experiment. Upon reflection, it should seem probable, that whether the general state of atmosphere at any time is positive or negative, that part of it next the earth will be nearer the natural state, by having given to the earth in one case, as having received from it in the other. In electrifying the air of a room, that which is the walls, or floor, is least altered. There is only one small ambiguity in the experiment, which may be cleared by trials; it arises from the supposition that bodies may be electrised positively by the friction of air blowing strongly on them, as it does in the kite and its string. If times the electricity appears to be negative, that friction is the same, the effect is from a negative of the upper air.

I am much pleased with your electrical thermometer, and the experiments you have made with it. I formerly satisfied myself by an experiment with my phial and syphon, that the elasticity of the air was not increased by the existence of electric where within the phial; but I did not know, till you inform me, that heat may be given it by an electric explosion. The continuance of its rarefaction, for some time after the discharge of your glass jar and of your case of seem to make this clear. The other experiments on wet paper, wet thread, green grass, and green wood, are not so satisfactory; as possibly reducing part of moisture vapour, by the electric passing through it, might occasion expansion which would be gradually reduced by the condensation of such vapour. The fine silver thread, the very small wire, and the strip of gilt are also subject to a similar objection, as metals, in such circumstances, are often partly reduced to smoke, particularly the gilding paper.

Your subsequent beautiful experiment the wire, which you made hot by the electric explosion, and in that gunpowder with it, puts it out of all question, that heat is produced by our artificial electricity, and that the melting of metals in that way, is not by what I formerly called a cold fusion. A late instance here, of the melting a wire, a house struck by lightning, and

parts of the wire burning holes in the floor which they fell, proved the same with regard to the electricity of nature. I was too easily that by given, even in philosophical books, from remote ages downwards, of melting money in purses, swords in scabbards, &c. without burning the inflammable matters so those melted metals. But men are, in general, such careless observers, a philosopher cannot be too much on his guard in crediting their relations of things extraordinary, and should never build an hypothesis on any thing but clear facts and experiments, it will be in danger of soon falling, as this does, like a house of cards.

How many ways there are of kindling fire, or producing heat in bodies! By the sun's rays, by collision, by friction, by hammering, by putrefaction, by fermentation, by mixtures of fluids, by mixtures of with fluids, and by electricity. And yet the fire when produced, though in different bodies it may differ in circumstances, as in colour, vehemence, &c. yet in the same bodies it is generally the same. Does not this indicate that the fire existed in the body, though in a quiescent state, before it by any of these means excited, disengaged, and brought forth to action and to view? May it constitute a part, and even a principle part, of the solid substance of bodies? If this should be the case, kindling in a body would be nothing more than developing this inflammable principle, and turning it at liberty to act in separating the parts of that body, which then exhibits the appearances of scorching, melting, burning, &c. When a lights a hundred candles from the flame of one, without diminishing that flame, it be properly said to have communicated all that fire? When a single spark is flint, applied to a magazine of gunpowder, is immediately attended with this consequence, that the whole is flame, exploding with immense violence, could this fire exist first in the spark? We conceive it. And thus is this supposition, there is enough in all bodies, singe, melt, or burn them, whenever it is, by any means, at liberty, so that it may exert itself upon them, or be disengaged from them. Liberty seems to be it by the of electricity through them, which we know can does, of itself, separate the parts even of water; perhaps the distinct appearances of fire only the effects of such separations? If so, there would be need of supposing the electric heats itself by the swiftness of its motion, or heats by the resistance with in passing through them. They would only be heated in proportion as such separation could be more easily. Thus a melting cannot be given to a large wire in the flame

of a candle, though it may be a small one; and this not so. A large wire resists less that action of the flame which tends to separate its parts, than a smaller wire; the force being divided among more parts, and weaker on each.

This reminds me, however, of a little experiment I have frequently made, which shows, in one operation, the different effects of the same quantity of electric fluid passing through different quantities of metal. A strip of tin-foil, three inches long, a quarter of an inch wide at one end, and tapering all the way to a sharp point at the other, fixed between two pieces of glass, and having the electricity of a large glass jar sent through it, will not be decomposed in the broadest part; towards the point it will appear melted in spots: where narrower, it will be quite melted; about half an inch of it next the point will be reduced to smoke.

You are mistaken in supposing, from your account of the effect of the pointed rod, that securing Mr. West's house from damage by a stroke of lightning, would give me great pleasure. I thank you for it most heartily, and for the pains you have taken in giving me a complete description of its situation, form, and substance, with the nature of the melted point. There is one circumstance, viz. that the lightning was seen to diffuse itself from the foot of the rod over the wet pavement, which I think, indicates that the earth under the pavement was very dry, and that the rod should have been sunk deeper, till it reached to earth moister, and therefore apt to receive and dissipate the electric fluid. And although, in this instance, a conductor formed of nail rods, not much above a quarter of an inch thick, served well to convey the lightning, yet some improvement I have from Carolina, give me to think that larger may be sometimes necessary, at least for the security of the conductor itself, which when too small, may be destroyed in executing its office, though it does, in due time, protect the house. Indeed, in the construction of an instrument new, and of which I could have but little experience, it is rather lucky that we should at first be in the truth as we seem to be, and commit so few errors.

There is another error in sinking deeper the lower end of the rod, and also for turning it outwards under ground some distance from the foundation; it is this, that water dripping from the eaves falls near the foundation, and sometimes soaks down there in greater quantities, so as to come near the end of the rod, though the ground about it be drier. In such case, this water may be exploded, that is, blown into vapour, whereby a force is generated, that may damage the foundation.

reduced to vapour, is said to occupy its former space. I have sent a charge through a glass tube, that has been well while empty, when filled first with water, shattered in pieces and driven all about the room:—finding no part of the water on the table, I suspected it to have been reduced to vapour; and confirmed in this suspicion afterwards, when I had filled a like piece of tube with ink, and put it on a sheet of clean paper, whereon, after the explosion, I could see neither any moisture nor any sully from ink. This experiment of the explosion of water, which I believe is made by that most ingenious electrician, father Beccaria, may account for what we sometimes see in a tree struck by lightning, when part of it is reduced to fine splinters like a broom; the sap vessels being so many tubes containing a watery fluid, which, when reduced to vapour, rends every tube lengthways. And perhaps this refraction of the fluids in animal bodies killed by lightning or electricity, that, by separating its fibres, renders the flesh tender, and apt to much more putrefy. I think too, that much of the damage done by lightning to stone and brick walls may sometimes be owing to the explosion of water, found, during showers, running or lodging in the joints of small cavities or cracks that happen to be in the walls.

Here are electricians that recommend knobs instead of points at the upper end of the rods, from a supposition that the points invite the stroke. It is true that points draw electricity at greater distances in the gradual silent way; but knobs will draw at the greatest distance a stroke. There is an experiment that will settle this. Take a crooked wire of the thickness of a quill, and of such a length as that end of it being applied to the lower part of a charged bottle, the upper may be brought near the ball on the top of the wire that is in the bottle. Let one end of this wire be furnished with a knob, and the other may be gradually tapered to a fine point. When the point is presented to discharge the bottle, it must be brought much nearer before it will receive the stroke, than the knob requires to be. Points besides tend to repel the fragments of an electrified cloud, knobs draw them nearer. An experiment, which I believe I have shown you, of cotton fleecy hanging from an electrified body, shows this clearly when a point or a knob is presented under it.

You seem to think highly of the importance of this discovery, as do many others on our side of the water. Here it is very little regarded; little, that though it is now seven or eight years since it was made public, I have not heard of a single person as yet attempted to be secured by it. It is true the

done by lightning — in frequent here as with —, and those who calculate chances may perhaps — that not one — (or the destruction of one house) in a hundred — happens — that — that therefore — is scarce worth while to — any expense — guard against it.—But in — countries there are particular situations of buildings more exposed than others — accidents, and there — so strongly impressed with the apprehension of them, — be very unhappy every time a little thunder is within their hearing; it may therefore be well — render this little piece of new knowledge as general and — well understood — possible, since to make — safe is not all its advantage, it is some to make us easy. And as the stroke it — from might have chanced perhaps but — in — lives, while it may relieve — hundred times from those painful apprehensions, the latter may possibly on the whole contribute more to the happiness of mankind than the former.

Your kind wishes — congratulations are very obliging. I return them cordially;—being, with great regard and esteem,

FRANKLIN."

Effects of Lightning in Carolina.

Referred to in the preceding Letter—of the effects of Lightning on two of the rods commonly affixed to houses there, for securing them against Lightning.

"CHARLESTON, Nov 1, 1760.

" — It is some years since — Raven's rod was struck by lightning. I hear an account of — was published at the time, but I cannot — it. According to the best information I can — get, he had fixed to the outside of his chimney a large iron rod, several feet in length, reaching above the chimney; and to the top of this rod the points — fixed. From the lower end of this rod, — small brass wire was continued down to the top of another — driven into the earth. On the ground-floor in the chimney stood a gun, leaning against — back wall, nearly opposite to where the — wire came down on the outside. The lightning — upon — points, did — damage — they were fixed to; but the brass wire, all down till it — opposite to the top of the gun-barrel, — destroyed.* There the lightning made a hole through the wall — back of the chimney, — get — the gun-barrel, — down which — seems — have passed, — although it did — hurt the barrel, it damaged the butt of the stock. — up some bricks of the — The — wire below the hole in the wall

good. No other damage, — I can learn, was done to the house. I am told the — house had formerly been struck by lightning, and much damaged, before these rods were invented."

Mr. William Meinel's Account of the Effects of the Lightning on his Rod, dated at Indian Land, in South Carolina, August 26, 1760.

"I — a — of electrical points, consisting of three prongs, of large brass — tip with silver, and perfectly sharp, each about seven inches long; — were riveted — equal distances into — iron nut about three quarters of an inch square, and opened — top equally to the distance of six or seven inches from point — point, in — regular triangle. — nut — screwed very tight on the top of an iron rod of above half an inch diameter, — the thickness of — curtain-rod, composed of several joints, annexed by hooks turned — the ends of each joint, and the whole fixed to the chimney of my house by iron staples. The points were elevated (a) six or seven inches above the top of the chimney; and the lower joint sunk three feet — the earth, in a perpendicular direction.

Thus stood the points on Tuesday last about five in the evening, when the lightning broke with a violent explosion — the chimney, cut the rod square off — under the nut, and I am persuaded, melted the points, nut, and ten of the rod, entirely up: as after the most diligent search, nothing of either was found (b.) and the top of the remaining rod — covered over with a congealed solder. The lightning ran down the rod, starting almost all the staples (c.) and unhooking the joints without affecting the rail (d.) except — the inside of each hook where the joints — coupled, the surface of which was melted (e.) and — covered over with solder.—No part of the chimney — damaged (f.) only — the foundation (g.) where it — shattered almost quite round, and several bricks were torn out (h.) Considerable cavities were made in the earth quite round the foundation, but most within eight or nine inches of the rod. It also shattered the bottom weather-board (i.) — corner of the house, and — a large hole in the earth by the corner post. On the other side of the chimney, it ploughed up several furrows in the earth, — yards — length. It — down the inside of the chimney (k.) carrying only — with it; and filled the whole house with its flash, (l.) smoke, and dust. — tore up the hearth in several places (m.) and broke — pieces of china in the buffet (n.) A copper tea-stand — the chimney — beat together, — if some great weight — fallen — it (o.) — three holes, each about half an — diameter, melted through — bottom

* A proof that it was — of sufficient substance to conduct with safety to itself (though with safety so far to the wall) so large a quantity of the electric fluid.
(† A more —

(p.) What seems to me the most surprising is, that the hearth under the kettle was not hurt, yet the bottom of the kettle was drove inward, as if lightning proceeded under it upwards (q.) and the [redacted] thrown [redacted] of the floor (r.) The fire dogs, an iron loggerhead, an Indian pot, an earthen cup, and a cat, were all in the chimney at the time unhurt, though a great part of the hearth was torn up (s.) My wife's sister, two children, and a negro wench, were who happened to be in the house at the time: the first, and one child sat within five feet of chimney; [redacted] were so stunned, that they never saw the lightning nor heard the explosion; the wench, with the other child in her arms, sitting [redacted] a great distance, was sensible of both; though every one was so stunned that they [redacted] recover for some time; how [redacted] it pleased God that no farther mischief ensued. The kitchen, [redacted] feet distance, was full of negroes, who [redacted] all sensible of the shock; and some of them tell me, that they felt [redacted] rod about a minute after, when it was so hot that they could [redacted] bear it in hand.

Remarks by Dr. Franklin.

THE foregoing very sensible and distinct account may afford a good deal of instruction relating [redacted] the nature and effects of lightning, and [redacted] the construction and use of this instrument for averting the mischiefs of it. Like other new instruments, this appears to have been at first in some respects imperfect: and we find that we are, in this as in others, to expect improvement from experience chiefly: but there seems to be nothing in the account, that should discourage us in the use of it; since at the same time that its imperfections [redacted] discovered, the [redacted] of removing them [redacted] pretty easily to be learnt from the circumstances of the account itself; and its utility upon the whole [redacted] manifest.

One intention of the pointed rod, is, to prevent a stroke of lightning. (See pages 239, 240.) [redacted] to have a better chance of obtaining this end, the points should [redacted] be too near to the top of the chimney or highest parts of the building to which they [redacted] affixed, but should be extended five or six feet above it; otherwise their operation [redacted] silently drawing [redacted] the fire (from such fragments of cloud [redacted] float in the [redacted] between the great body of cloud and the earth) will [redacted] prevented. For the experiment with the lock of cotton hanging below the electrified prime conductor shows, that a finger under it, being a blunt body, extends the cotton, drawing its lower part downwards; when a needle, with its point presented [redacted] the cotton, makes it fly up again to [redacted] prime conductor; [redacted] that [redacted] effect is stronger when [redacted] much of the needle as possible appears [redacted] the end of the finger: grows

weaker as the needle is shortened between the finger and thumb; and is reduced to nothing when only a short part below the point appears above the finger. Now it seems the points of Mr. Maine's rod [redacted] elevated only (a) six or seven inches above the top of the chimney; which, considering the bulk of the chimney and the house, was too small an elevation. For the great body of the matter near them would hinder their being easily brought into a negative [redacted] by the repulsive power of the electrified cloud, in which negative [redacted] it is that they [redacted] most strongly and [redacted] only the electric fluid from other bodies, and convey it into the earth.

(b) Nothing of the points, &c. could be found. This is a common effect. (See page 297.) Where the quantity of the electric [redacted] passing is too great for the conductor through which it passes, the metal is either melted, or reduced to smoke and dissipated; but where the conductor is sufficiently large, [redacted] fluid passes in it without hurting it. Thus these three [redacted] destroyed, while the rod to which they were fixed, being of greater substance, remained unburnt; its end only, to which they were joined, being a little melted. Some of the melted part of the lower ends of those wires uniting with it, and appearing on it like solder.

(c) (d) (e) As the several parts of the rod [redacted] connected only by the ends being bent round into hooks, the contact between hook and hook was much smaller than the rod: therefore the current through the metal being confined in those narrow passages, melting part of the metal, as appeared on examining the inside of each hook. Where metal is [redacted] by lightning, some part of it is generally exploded: and these explosions in the joints appear to have been the cause of unhooking them; and, by that violent action, of starting also [redacted] of the staples. We learn from hence, that a rod in one continued piece is preferable to one composed of links or parts hooked together.

(f) No part of the chimney was damaged; because the lightning passed [redacted] the rod. And this instance agrees with others in showing, that the second and principal intention of the rods is obtainable, viz. that of conducting the lightning. In [redacted] the instances yet known of the lightning's falling on any house guarded by rods, it has pitched down upon the point of the rod, and has not fallen upon any other part of the house. Had the lightning fallen on this chimney, unfurnished with a rod, it would probably have rent it from top to bottom, as we see, by the effects of the lightning on the points [redacted] rod, that its quantity was very great; and we know that many chimneys have been [redacted] demolished. But no [redacted] was damaged, only (f) (g) (h) at the foundation, where it was shattered and at-

several bricks torn out. Here we learn the principal difficulty in fixing this rod. The lower joint being sunk but three feet into the earth, did not seem to go low enough to come in water, or a large body of earth so moist as to receive readily from it a great quantity it conducted. The electric fluid, therefore, thus accumulated at the lower end of the rod, quitted it at the surface of the earth, dividing in search of other passages. Part of it tore up the surface in furrows, and made holes in it: part entered the bricks of the foundation, which being near the earth are generally moist, and, in exploding that moisture, shattered them. (See § 311.) Part went through or under the foundation, and got under the hearth, blowing up great part of the bricks (m) (s), and producing the other effects (n) (p) (q) (r). The dogs, log-gerhead, and iron pot were not hurt, being of sufficient substance, and they probably protected the copper tea-kettle being thin suffered some damage. Perhaps, though found on a sound part of the hearth, it might at the time of the stroke have stood on the part blown up, which will be both for the bruising and melting.

That it ran down the inside of the chimney (k) I apprehend must be a mistake. Had it done so, I imagine it would have brought something more than with it; it probably have ripped off the pargetting, and brought down fragments of plaster and bricks. The shake, from the explosion on the rod, was sufficient to shake down a good deal of loose

Lightning does not usually enter houses by the doors, windows, or chimneys, as open passages, in the that air them: its nature is, to be attracted by substances, that are conductors of electricity; it penetrates and in them, and, if they are not good conductors are neither wood, brick, plaster, it is apt to rend them in its passage. It would easily pass through the air from a cloud to a building were it not for the aid it in its passage by intervening fragments of clouds below the main body, by the falling rain.

It is said that the house was filled with its flash (t). Expressions are common in accounts of the effects of lightning, which are apt to understand the lightning filled the house. Our language indeed seems to want a word to express the light of lightning distinct from the lightning itself. When a hill is struck by it, lightning of that stroke exists only in a narrow vein between the cloud and tree, but its light space many miles round; people the greatest distance from it are apt say, "The lightning into our rooms through our windows." As it is in itself extremely bright, it cannot, when so near as to strike a house, illuminating highly

every room in it through the windows; and this I suppose to have been the Mr. Maine's; that, except in the hearth, from the causes above-mentioned, it was not in any other part of the house; flash meaning no more than the light of the lightning. It is for want of considering this difference, that people suppose there is a kind of lightning not attended with thunder. In fact there is probably a loud explosion accompanying every of lightning, at the same instant;—but as sound travels slower than light, we often hear the sound some seconds of time after having seen the light; and as sound does not travel as light, we sometimes see the light at a distance too great to hear the sound.

(u) The breaking some pieces of china the beaufet, may nevertheless to indicate that the lightning was there: but as there is no of having hurt any part of the beaufet, or of the walls of the house, I rather ascribe that effect to the concussion of the air, or shake of the house by the explosion.

Then, to me it appears, that the house and its inhabitants saved by the rod, though the rod itself was unjointed by the stroke; and that, if it been made of one piece, and sunk deeper in the earth, or entered the a greater distance from the foundation, the mentioned damages (except the melting of the points) would not have happened.

Dr. Heberden, London.

On the Electricity of the Tourmalin

(TRANSLATED, JUNE 7, 1759)

I return the smallest of your tourmaline, with hearty thanks for the kind present of the other, which though I value highly for and wonderful properties, I shall it for the friendship I am honoured with by the giver.

I hear that the negative electricity of one of the tourmalin, when heated, is absolutely denied (and all that has been related of it ascribed to prejudice in favour of a system) by some ingenious gentlemen abroad, who profess to have made the experiments on the stone with exactness. The experiments have succeeded differently with me; yet I would not call the accuracy of these gentlemen in question. Possibly the tourmalines they have tried were not properly cut; so that the positive and negative powers obliquely placed, or in some whereby their effects were confused, the negative parts more easily supplied by positive. Perhaps the lapidaries who have hitherto cut these stones, had no regard to the situation of the two powers, but chose to make the faces of stone where they could obtain the great-

est breadth, or ~~some~~ other advantage in the form. If any of these stones, in their natural state, can be procured here, I think it would be right to endeavour finding, before they ~~are~~ cut, the two sides that contain the opposite powers, and make the faces there. Possibly ~~the~~ the effects might be stronger, and more distinct; ~~though~~ ~~these~~ that I have examined have evidently the two properties, yet, without ~~the~~ full heat given by boiling water, they ~~are~~ somewhat confused; the virtue seems strongest towards ~~the~~ end of the face; and in the middle, or near the other end, ~~is~~ discernible; ~~the~~ the negative, I think, always weaker than the positive.

I have had the large one new cut, so as to make both ~~the~~ alike, and ~~the~~ the change of form ~~made~~ change of power, but ~~the~~ properties of each side remain the ~~same~~ as I found them before.—It is now set in a ring in such a manner as to ~~turn~~ on an axis, that I may conveniently, in making experiments, come ~~to~~ both sides of the stone. The little rim of gold it ~~is~~ set in, has made ~~no~~ alteration in its effects. The warmth of my finger, when I wear it, is sufficient to give it some degree of electricity, so that it ~~is~~ always ready to attract light bodies.

The following experiments have ~~been~~ made that M. Ripinus's account of the positive and negative ~~of~~ of the opposite sides of the heated tourmalin ~~is~~ well founded.

I heated the large ~~stone~~ in boiling water.

As soon as it was dry, I brought it near a very small cork ball, that ~~was~~ suspended by a silk thread.

The ball ~~was~~ attracted by ~~the~~ face of the stone, which I call A, and then repelled.

The ~~stone~~ in ~~the~~ state ~~was~~ repelled by the positively charged wire of a phial, and attracted by ~~the~~ other side of the stone, B.

The ~~stone~~ being heated afresh, and the side ~~was~~ brought ~~the~~ the ball, it ~~was~~ first attracted and presently after repelled by that side.

In this second ~~stone~~ it ~~was~~ repelled by the negatively charged wire of a phial.

Therefore, if the principles ~~are~~ generally received, relating ~~to~~ positive and negative electricity, are true, ~~the~~ side A of the large stone, when the ~~stone~~ is heated in water, is in a positive ~~of~~ of electricity; and the side B, in a negative ~~of~~.

The same experiments ~~were~~ made with the small ~~stone~~ stuck by ~~the~~ edge on the end of a small glass tube, with sealing-wax, ~~the~~ same effects are produced. The flat ~~stone~~ of the small ~~stone~~ gives ~~no~~ signs of positive electricity; ~~the~~ high ~~stone~~ gives the signs of negative electricity.

Again: I suspended the small stone by a silk thread.

I ~~stone~~ it ~~is~~ it hung, in boiling water.

~~It~~ heated the large one in boiling water.

Then I brought the large stone near to the suspended small one,

~~It~~ immediately turned its ~~stone~~ side to the side B of the large stone, and would cling to it.

I turned ~~the~~ ring, so as ~~to~~ present ~~the~~ side A of the large stone, to the ~~stone~~ side of the small one.

~~The~~ flat side ~~stone~~ repelled, and the small stone, turning quick, applied its high side to ~~the~~ side A of the large ~~stone~~.

This was precisely what ought to happen, on the supposition that ~~the~~ flat side of ~~the~~ stone, when heated in water, is positive, and the high ~~stone~~ negative; ~~the~~ side A of the large ~~stone~~ positive, and the side B negative.

The effect was apparently the same as would have been produced, if one magnet ~~had~~ been suspended by a thread, and the different poles of another brought alternately ~~near~~ it.

I ~~stone~~ that the face A, of the large stone, being coated with leaf-gold (attached by the white of an egg, which will bear dipping in hot water) becomes quicker and stronger in ~~the~~ the cork ball, repelling it the instant it comes in contact: which I suppose to be occasioned by the united force of the different parts of the face, collected and acting together through the metal.

B. FRANKLIN.

Professor Winthrop to B. Franklin.

New Observation relating to Electricity in the Atmosphere. Cambridge. (Massachusetts.) Sept. 29, 1762.

There is an observation relating to electricity in the atmosphere, which seemed new to me, though perhaps it will not to you: however, I will venture ~~to~~ mention it. I have some points on the top of my house, and the wire where it passes within-side the house is furnished with bells, according to your method, to give notice of the ~~presence~~ of the electric fluid. In summer, these bells, generally ring at the approach of a thunder-cloud; but cease soon after ~~it~~ begins to rain. In winter, they sometimes, though ~~very~~ very often, ring while it is snowing; but never, that I remember, when it rains. ~~What~~ what was unexpected to me ~~was~~ that, though the bells had not rung while it was snowing, yet, the next day, ~~the~~ it ~~was~~ done snowing, ~~the~~ the weather was cleared up, while the ~~stone~~ driven about by a high wind ~~was~~ W. or N. W. the bells rung for several hours (though with little intermissions) ~~very~~ briskly as ever I knew them, and I drew considerable sparks from the wire. The phenomenon I never observed but twice, viz. on the 31st of January, 1760, and ~~the~~ 3d of March, 1762—I ~~stone~~ air, &c.

A. Small, of London, to Dr. Franklin.

Flash of Lightning that struck St. Bride's Steeple.

I ■■■■ just recollected that in ■■■■ of our great storms of lightning, I ■■■■ appearance, which I never observed before, nor ever heard described. I am persuaded that I ■■■■ the flash which struck St. Bride's steeple. Sitting at my window, and looking ■■■■ the north, I saw what appeared to me a solid straight rod of fire, moving at a very sharp angle with the horizon. It appeared to my eye ■■■■ about two inches diameter, and had nothing of the zig-zag lightning motion. I instantly ■■■■ person sitting with me, that ■■■■ place must ■■■■ struck at that instant. I ■■■■ so much surprised ■■■■ the vivid distinct appearance of the fire, that I did not hear the clap of thunder, which stunned every ■■■■ besides. Considering how low it moved, I could ■■■■ have thought ■■■■ had gone so far, having St. Martin's, the New Church, and St. Clement's ■■■■ ples in ■■■■ way. ■■■■ struck the steeple a good way from the top, and the first impression ■■■■ made in the side is in the same direction I ■■■■ it move in. It ■■■■ succeeded by two flashes, almost united, moving in a pointed direction. There were two distinct houses struck in Essex-street. I should have thought the rod would have fallen in Covent-Garden, it was so ■■■■ Perhaps the appearance is frequent, though never before seen by your's,
ALEXANDER ■■■■ MALL.

To Peter Franklin, Newport.

Method of securing a Powder Magazine from Lightning.

—You may acquaint the gentleman that desired you to inquire my opinion of the best method of securing a powder magazine from lightning, that I think they cannot do better than to erect a mast not far from it, which may reach fifteen or twenty feet above the top of it, with a thick iron rod a one piece fastened to it, pointed at the highest end, and reaching down through the earth ■■■■ it comes to water. Iron is a cheap metal; but if it ■■■■ dearer, ■■■■ is a public thing, the expense is insignificant; therefore I would have the rod ■■■■ least ■■■■ inch thick, to allow for its gradually wasting by rust; it will last as long ■■■■ the mast, and may be renewed with it. The sharp point for five or six inches should be gilt.

■■■■ there ■■■■ another circumstance of importance to the strength, goodness, and usefulness of the powder, which does not ■■■■ to have been enough attended to: I mean ■■■■ keeping it perfectly dry. For want of a method of doing this, much is spoiled in damp magazines, ■■■■ much so damaged ■■■■ to become of little value.—If, instead of barrels ■■■■ were kept ■■■■ cases of bottles well corked; or in large tin canisters, with small covers shutting

■■■■ by means of oiled ■■■■ between, ■■■■ covering the joining on the canister; ■■■■ if in barrels, then the barrels ■■■■ with thin ■■■■ lead; no moisture in either of these methods ■■■■ possibly enter the powder, since glass ■■■■ metals ■■■■ both impervious to ■■■■

By the latter of these means you see tea is brought dry ■■■■ crisp from China to Europe, ■■■■ thence to America, though it comes ■■■■ the way by sea in the damp hold of a ship. And by this method, grain, meal, &c. if well dried before ■■■■ is put up, may be kept for ages sound and good.

There is another thing very proper to line small barrels with; it is what they call tin-foil, ■■■■ leaf-tin, being tin milled between rollers till it becomes as thin as paper, and more pliant, at the ■■■■ time that ■■■■ is extremely close. It may ■■■■ applied to wood with ■■■■ paste, made with boiling-water thickened with flour; and, so laid on; will lie very close and stick well: but I should prefer a hard sickly varnish for that purpose, made of linseed oil much boiled. The head might be lined separately, the tin wrapping a ■■■■ little round their edges. The barrel, while the lining is laid on, should have the end hoops slack, ■■■■ that the ■■■■ standing at a little distance from each other, may admit the ■■■■ into its groove. The tin-foil should be pleyed into the groove. Then, one head being put in, and that end hooped tight, the barrel would be ■■■■ to receive the powder, and when the other head ■■■■ put in and the hoops drove up, the powder would be safe from moisture even if the barrel were kept under water. This tin-foil is but about eighteen pence sterling a pound, and is ■■■■ extremely thin, ■■■■ I imagine a pound of it would line three or four powder-barrels.—I am, &c.

B. FRANKLIN.

Of Lightning: and the Methods now used in America for securing Buildings and Persons from its mischievous Effects.

EXPERIMENTS made in electricity first gave philosophers a suspicion, that the matter of lightning ■■■■ the same with the electric matter. Experiments afterwards made on lightning obtained from the clouds by pointed rods, received into bottles, and subjected to every trial, have since proved this suspicion to be perfectly well founded; ■■■■ that whatever properties ■■■■ in electricity, ■■■■ also the properties of lightning.

This matter of lightning, ■■■■ of electricity, ■■■■ extreme subtle fluid, penetrating other bodies, and subsisting in them, equally diffused.

When by any operation of art or nature, there happens to be a greater proportion of this fluid in ■■■■ body than in another, the body which has ■■■■ will communicate to that which has least, till the proportion be-

comes equal; provided the distance between them be not too great; or, if it is too great, till there be proper conductors to convey it from one to the other.

If the communication be through the air without any conductor, a bright light is seen between the bodies, and a sound is heard. In experiments, we call this light and sound electric spark and snap; but in the great operations of nature, the light is called lightning, and the sound (produced later than the light, though generally arriving later than the light does to our eyes) is, with echoes, thunder.

If the communication of fluid is by a conductor, it may be without either light or sound, the subtle fluid passing in the substance of the conductor.

If the conductor be good and of sufficient bigness, the fluid passes through it without hurting it. If otherwise, it is damaged or destroyed.

All metals, and water, are good conductors.—Other bodies may become conductors by having some quantity of water in them, as wood, and other materials used in building, but not having much water in them, they are not good conductors, and therefore are often damaged in the operation.

Glass, wax, silk, wool, hair, feathers, and even wood, perfectly dry, are non-conductors: that is, they resist instead of facilitating the passage of this subtle fluid.

When this fluid has an opportunity of passing through two conductors, one good and sufficient, as of metal, the other not so good, it goes in the best, and will follow it in any direction.

The distance at which a body charged with this fluid will discharge itself suddenly, striking through the air into another body that is not charged, or not so highly charged, is different according to the quantity of the fluid, the dimensions and form of the bodies themselves, and the density of the air between them.

—This distance, whatever it happens to be, between any two bodies, is called their striking distance, as, till they are within this distance of each other, no stroke will be made.

The clouds have often a great quantity of this fluid in proportion than the earth: in which case, if they are near enough (that is, within the striking distance) or meet with a non-conductor, the fluid quits them and strikes into the earth. A cloud fully charged with this fluid, if so high as to be beyond the striking distance from the earth, passes quietly without making noise, giving light; unless it meets with other clouds that have less.

Tall trees and lofty buildings, as the towers and spires of churches, become sometimes conductors between the clouds and the earth; but being good conductors, that is, conveying the fluid freely, they are often damaged.

Buildings that have their roofs covered with lead, or other metal, have spouts of metal tinned from the roof into the ground to carry off the water, and are never hurt by lightning, as, whenever it strikes such a building, it passes through the metals and into the walls.

When other buildings happen to be within the striking distance from such clouds, the lightning passes in the walls, whether of wood, brick, or stone, quitting the walls only when it can find better conductors than them, as metal rods, bolts, and hinges of windows or doors, gilding on wainscot or frames of pictures, the silvers on the backs of looking glasses, the wires for bells, the bodies of animals, as containing watery fluids. And in passing through the building, it follows the direction of these conductors, taking many in its way as can assist it in its passage, whether in a straight or crooked line, leaping from one to the other, if not far distant from each other, only reaching the wall in the spaces where these partial good conductors are too distant from each other.

An iron rod being placed on the outside of a building, from the highest part continued down into the moist earth, in any direction, straight or crooked, following the form of the roof or parts of the building, will receive the lightning at its upper end, attracting it as to prevent its striking any other part; affording it a good conveyance into the earth, will prevent its damaging any part of the building.

A great quantity of metal is found able to conduct a great quantity of this fluid. A wire no bigger than a goose-quill has been known to conduct (with safety) the building as far as the wire was continued) a quantity of lightning that did prodigious damage both above and below it: and probably larger rods are not necessary, though it is in America, to make them of half an inch, or of three quarters, of an inch diameter.

The rod may be fastened to the wall, chimney, &c. with staples of iron.—The lightning will not leave the rod (a good conductor) to pass into the wall (a non-conductor) through those staples.—It would rather, if any were in the walls, pass out of it into the rod to get more readily by that conductor into the earth.

If the building be very large and extensive, two or three rods may be placed in different parts, for greater security.

Small ragged parts of clouds, suspended in the air between the great body of clouds and the earth (like leaf gold in electrical experiments) often serve as partial conductors for the lightning, which proceeds from one of these to another, and by their help within the striking distance of the earth or a building. Therefore strikes through those conductors a building that would otherwise be beyond the striking distance.

though ■ ■ thousand years past bells have been solemnly consecrated by the Romish church,* in expectation that ■ sound of such ■ ■ bells would drive away those storms and secure our buildings from the stroke of lightning; and during so long a period, it has not been found by experience, that places within the reach of such blessed sound, are safer than others where ■ ■ heard; but that on the contrary, the lightning seems to strike steeples of choice, and that ■ the very ■ the bells are ringing; } yet still they continue ■ bless the ■ ■ bells, and jangle the ■ ■ whenever it thunders.—One would think ■ ■ now time ■ try ■ other trick;—and ■ is recommended (whatever this able philosopher may have been told to the contrary) by ■ than twelve years' experience, wherein, among the great number of houses furnished with ■ rods in North America, not one so guarded has been materially hurt with lightning, and several have been evidently preserved by their means; while a number of houses, churches, barns, ships, &c in different places, unprovided with rods, have been struck and greatly damaged, demolished or burnt. Probably the vestries of our English churches are not generally well acquainted with these facts; otherwise, ■ as good protestants they have no faith in the blessing of bells, they would be less excusable in ■ providing this other security for their respective churches, and for the good people ■ may happen to be assembled in their during ■ tempest, especially ■ those buildings, from their greater height, are more exposed to the stroke of lightning than our common dwell-

I have nothing new in the philosophical way to communicate to you, except what follows. When I was last year in Germany, I met with a singular kind of glass, being a tube about eight inches long, half an inch in diameter, with a hollow ball of near an in diameter at one end, and two of an inch and half at the other, hermetically sealed, and half filled with water. If one end is held in the

[illegible][illegible]

hand, and the other a little elevated above the level, a constant _____ of large bubbles proceeds from the end in the hand to the other end, making an appearance _____ puzzled _____ much, till I found that the space not filled with _____ also free from air, and either _____ with a subtle invisible vapour continually rising from _____ water. _____ extremely rarefiable by the least heat _____ end, _____ condensable _____ by the least coolness _____ the other; or _____ is the very _____ of fire itself which parting from the hand pervades the glass, and by _____ expansive force depresses the _____ till it _____ between it and the glass, and escape to the other end, where it gets through the glass _____ into the air _____ am rather inclined _____ the first opinion. _____ doubtful between the two. An ingenious artist here, Mr. Nairne, mathematical instrument-maker, has made _____ number of them from mine, _____ improved them, for his _____ much more sensible than those I brought from Germany.—I bored a very small hole through the waucost in the seat of my window, through which _____ little cold air constantly entered, while the air in the room was kept warmer by fires daily made in it, being winter time. I placed one of his glasses, with the elevated _____ against this hole, and the bubbles from the other end, which was in a _____ situation, were continually passing day and night, to the no small surprise of even philosophical spectators. Each bubble discharged is larger than that from which it proceeds, and yet that is not diminished; and by adding itself to the bubble at the other end, that bubble is not increased, which seems very paradoxical. When the balls at each end are made large, and the connecting tube very small and bent at right angles, so that the balls, instead of being at the ends, _____ brought on the side of the tube, and the tube is held so _____ that the balls are above it, the water will be depressed _____ that which is held _____ the hand, and _____ the other as yet _____ fountain, when it _____ all _____ the other, it begins _____ boil, as it were, by the vapour passing up through it; and the instant it begins _____ boil, a sudden coldness _____ felt _____ the ball held _____ a curious experiment, this first observed and shown me by Mr. Nairne. There is something in it similar to the old observation, I have mentioned by Aristotle, that the bottom of a boiling pot is not warm. _____ perhaps it may help to explain that fact:—if indeed the fact.—When the water stands at an equal height _____ in both these balls, and all at rest, if you wet one of the balls by _____ of a feather dipped in spirit, though that spirit is of the same temperament as to heat and cold with the rest _____ the glasses, yet the cold occasioned by the evaporation of the spirit from the wetted ball _____ so condense the vapour over the water contained in that ball, as that the water of the other ball will be pressed up into it, followed

by a succession of bubbles, till the spirit all dried away. Perhaps the observations on these little instruments may suggest and be applied to some beneficial uses. It has been thought, that water reduced to vapour by heat was rarefied only fourteen thousand times, and on this principle our engines for raising water by fire are said to be constructed: but if the vapour so much rarefied from water, capable of being itself still farther a boundless degree by the application of heat to vessels parts of vessels containing the vapour (as first it is applied containing the) perhaps a much greater power may be obtained, with little additional expense. Possibly too, the power of easily moving water from one end to the other of a beam (suspended in the middle like a scale-beam) by a small degree of heat, may be applied advantageously to some other mechanical purposes.

B. FRANKLIN.

Experiments, Observations, and Facts, tending to support the Opinion of the utility of long pointed Rods, for securing Buildings from Damage by Strokes of Lightning.—Read at the committee appointed to consider the erection of conductors to secure the magazines at Portsea, Aug. 27, 1772.

The prime conductor of an electric machine, A, B (See the plate) being supported about 10 inches and a half above the table by a wax-stand, and under it erected a pointed wire 7 inches and a half high, and one fifth of an inch thick, and tapering to a sharp point, and communicating with the table; when the point (being uppermost) is covered by end of a finger, the conductor may be full charged, and the electrometer, c, (Mr. Henley's) will rise to height indicating a full charge: but point is uncovered, of electrometer drops, showing the prime conductor instantly discharged nearly emptied of its electricity. Turn the wire upwards (which represents an unpointed bar) and no such effect follows, electrometer remaining at its usual height when the prime conductor is charged.

What quantity of lightning, a high pointed well communicating with the earth may be expected charge from clouds silently in a short time, is yet unknown; but I have reason a particular fact to think it may some times be very great. In Philadelphia I a the top of my chimney, extending about nine feet

above it. From the foot of this rod, a wire (the thickness of a goose-quill) through covered gills tiled in the roof, laid down through the wall of the staircase; the lower end connected with the iron spear of a pump. On the staircase opposite the door, the wire was divided; the ends separated about six inches, a little bell on each end; and between the brass ball suspended by a silk thread, to play between and strikes the bells when clouds passed with electricity in them. After having frequently drawn sparks and charged bottles from the bell of the upper wire, I was one night awaked by loud cracks on the staircase. Starting up and opening the door, I perceived that the brass ball instead of vibrating as usual between the bells, was repelled and kept at a distance from both; while the fire passed sometimes in very large quick cracks from bell to bell; and sometimes a continued dense white seemingly as large as my finger, whereby the whole state was enlightened as with sunshine, so that might see to pick up a pin.* And from the apparent quantity thus discharged, I cannot but conceive that a number of such conductors must considerably lessen that of any approaching cloud, before it comes so near as to deliver its contents in a general stroke:—an effect not to be expected from bare unpointed; if the experiment with the blunt end of the wire is deemed pertinent the case.

EXPERIMENT II.

The pointed wire under the prime conductor continuing of the same height, pinch it between the thumb and finger near the top, so as just to conceal the point; then turning the globe, the electrometer will rise and mark the full charge. Slip the fingers down so as to discover about half an inch of the wire, then another half inch, and then another; at every one of these motions discovering more and more of the pointed wire; you will see the electrometer fall quick and proportionably, stopping you stop. If you slip down the whole distance at once, the ball falls instantly down.

From experiment it appears that a greater effect is drawing off the lightning

* Mr. de saw with greater quantities of lightning brought down by the wire of his kite. He has explosions from it, of which greatly resembled that of thunder, and we heard (without) into the heart of the city, not standing the various noises there. The fire went at the instant of the explosion had the shape of a spindle long five lines in diameter. Yet the time of explosion to the end of the experiment, no lightning was seen above, nor any thunder heard. At another time the streams fire issuing from it were observed to be as thick and ten feet long.—See Dr. Priestley's *History of Electricity*, pages 124—130, first edition.

† Twelve were proposed on and near at Portsea.



Fig. 1



Fig. 2

111



112



113



114

from the clouds may be expected from *long* pointed rods, than from *short* ones; I mean from such as show the greatest length, *above the building* they are fixed on.

EXPERIMENT III.

Instead of pinching the point between the thumb and finger, as in the last experiment, keep the thumb and finger each at *near an inch distance* from it, but at the *same height*, the point between them. In this situation, though the point is fairly exposed the prime conductor, it has little or no effect; the electrometer rises to the height of a full charge. *moment the fingers taken away, the ball falls quick*

To explain this, it is supposed, the reason of the sudden effect produced by a long naked pointed wire is, that (by the repulsive power of the positive charge in the prime conductor) the natural quantity of electricity contained in the pointed wire is driven down into the earth, and the point of the wire made *strongly negative*; whence it attracts the electricity of the prime conductor more strongly than bodies in their natural state would do; the *small quantity of common* in the point, being able by its attractive force to retain *natural quantity of the electric fluid*, against the force of that repulsion.—But the finger thumb being substantial and blunt bodies, though near the prime conductor, hold better their own natural quantity against the force of that repulsion; and so, continuing nearly in their natural state, they jointly operate on the electric fluid in the point, opposing its descent and *aiding the point* it; contrary to the repelling power of the prime conductor, which would drive it down.—And this may also serve to explain the different powers of the point in the preceding experiment, the slipping down the finger and thumb at different distances.

Hence is collected, that a pointed rod erected between chimnies, and very little higher (an instance of which I have seen) cannot have so good an effect, as if it had of the chimnies, its whole length above it.

EXPERIMENT IV.

If, instead of a long pointed wire, a *large solid body* (to represent a building without a point) be brought under and as near the prime conductor, when charged; the ball of the electrometer will *fall a little*; and on taking away the large body, will *rise again*.

rising again that the prime conductor little or none of its electric charge, as it done through the point: the falling of the ball while the large body was under the

conductor therefore shows, that a quantity of its atmosphere was drawn from the end where the electrometer is placed to the part immediately over the large body, and there accumulated ready to strike into it with its whole undiminished force, as soon as within the striking distance; and, were the prime conductor moveable like a cloud, it would approach the body by attraction till within that distance. The swift motion of clouds, as driven by the winds, probably prevents this happening so as otherwise it might do: for, though parts of the cloud may stoop towards a building as they pass, in consequence of such attraction, yet they forward beyond the striking distance, before they could by their descending come within it.

EXPERIMENT V.

Attach a light of cotton the underside of the prime conductor, it may hang down towards the pointed wire mentioned in the first experiment. Cover the point with your finger, and the globe being turned, the cotton will extend itself, stretching down towards the finger, as a; but on uncovering the point, it instantly flies up to the prime conductor, b, and continues as long as the point is uncovered. The moment you cover it again, the cotton down again, extending itself towards the finger; and the same happens in degree, if (instead of the finger) you use, uncovered, the blunt end of the wire uppermost.

To explain this, it is supposed that the cotton, by its connexion with the prime conductor, receives from it a quantity of electricity; which its being attracted by the finger that remains still in nearly its natural state. But when a point is opposed to cotton, its electricity thereby taken from it, faster than it can at a distance be supplied with a fresh quantity from the conductor. Therefore being reduced to the natural state, it is attracted up to the electrified prime conductor; rather than down, as before, to the finger.

Supposing further that the prime conductor represents a cloud charged with electric fluid; the cotton, a ragged fragment of cloud (of which the underside of great thunder-clouds are seen to have many) the finger, a chimney or highest part of a building.—We then may conceive when such a cloud passes over a building, some one of its ragged under-hanging fragments may be drawn down by the chimney or other high part of the edifice; creating thereby a connection between it and the great cloud.—But a long pointed rod being presented to this fragment, may occasion its receding, the cotton, up to the great cloud; and thereby increase, instead of lessening the distance, so

as often to make it *greater* than the striking *blunt end* of a wire uppermost (which represents the unpointed bar) it appears that the same good effect is not from that *be pointed*. A long pointed rod, it is therefore imagined, *may prevent* some strokes; as well as *conduct* others that fall upon it, when a great body of cloud comes on so heavily that the above repelling operation on fragments cannot take place.

EXPERIMENT VI.

Opposite the side of the prime conductor, place *separately* isolated by wax stems, Mr. Canton's two boxes with pith balls suspended by *On* box, lay a wire six inches long and one fifth of an inch thick, tapering to a sharp point; but so laid as that four inches of the *pointed end* of one wire, and an equal length of the *blunt end* of the other, may project beyond the ends of the boxes; and both at eighteen inches distance from *prime conductor*. Then charging the prime conductor by a turn or two of *globe*, *balls* of each pair *separate*; those of the box, whence the point projects most, *considerably*; the others *less*. Touch the prime conductor, and those of the box with the *blunt point* will *collapse*, and join. Those connected with *point* will at the *approach* each other, *within* about an inch, and there *remain*.

OBSERVATION.

This *proof*, though the small sharpened part of *wire* must have had a *less natural* quantity in it, before the operation, than the thick blunt part; yet a greater quantity was *driven down* from it to the balls. Thence it is again inferred, that the pointed rod *rendered* *negative*: and farther, that if a *stroke* must fall from the cloud over a building, furnished with such a rod, it is more likely to be drawn to that pointed rod, than to a blunt one; *being* *strongly* negative, and of course its attraction stronger. And it *more* eligible, that the lightning *on* the point of the conductor (provided to convey *into* *earth*) than on any other part of the *building*, *thence* to proceed to such conductor: *which end* is also more likely to be obtained by the length and loftiness of the rod; *protecting* *sively* the building under it.

It has been *objected*, that erecting pointed rods upon edifices, is to *invite* and draw the lightning into them; and therefore dangerous. Were such rods to *be erected* on buildings, *without continuing* the communication quite down into the moist earth, this objection might then have weight; *when* such complete conductors are made, the lightning is *invited* not into the building, but into the *earth*, the *it aims at*, and which it always seizes

every help to obtain, even from broken partial metalline conductors.

It has also been suggested, that from such electric experiments *nothing certain can be concluded as to the great operations of nature*; since it is often seen, that experiments which have succeeded in small, in large *It is true* that in mechanics this has sometimes happened. But when it is considered that we owe our first knowledge of the nature and operations of lightning, to observations on such small experiments; and that on carefully comparing the most accurate accounts of former facts, and the exactest relations of those that have occurred since, the effects have surprisingly agreed with the theory; it is humbly conceived that in natural philosophy, in this branch of it at least, the suggestion has not so much weight; and that the farther new experiments now adduced in recommendation of *long sharp-pointed rods*, may have some claims to credit and consideration.

It has been urged too, that though points may have considerable effects on a *small* prime conductor at *small distances*; yet *great* clouds and *great distances*, nothing is to be expected from them. To this it is answered, *in those small experiments* it is evident *points* act at a greater than the *striking distance*; and in the large way, their service is *only* expected where there is such nearness of *cloud*, *to endanger* *stroke*; and there, it cannot be doubted the points *have* some effect. And if the quantity discharged by a single pointed rod may be *as considerable* as I have shown it; the quantity discharged by a number will be proportionably greater.

But this part of the theory does not depend alone on *small experiments*. Since the practice of erecting pointed rods in America (now *twenty years*) five of them have been struck by lightning, viz. *Raven's* and *Mr. Maine's*, in South Carolina; *Tucker's*, in Virginia; *West's* and *Mr. Moulder's*, in Philadelphia. Possibly there *have* *more* that have not come to my *ledge*. But in every one of these, the lightning did not fall upon the *body of the house*, but precisely on the *several points* of *rods*; and, though the conductors were sometimes *not sufficiently large and complete*, was conveyed into the earth, without any material damage to the buildings. Facts then *as great*, as far as we have them authenticated, justify the opinion that is drawn *the experiments* *as above related*.

It *has been* objected, *unless* we know the quantity that might *possibly* be discharged at one stroke from the clouds, we cannot be sure we have provided *sufficient* conductors; and therefore cannot depend on

their conveying away all that may fall on their points. Indeed we have nothing to form a judgment by in this but past facts; and we know of no instance where a complete conductor to the moist earth was insufficient, if half an inch diameter. It is probable that many strokes of lightning have been conveyed through the common leaden pipes affixed to houses to carry down the water from the roof to the ground: and there is no account of such pipes being melted and destroyed, as must sometimes have happened if they were insufficient. It is only a question of the dimensions proper for a conductor of lightning, as we do of those proper for a conductor of rain, by past observation. And as we think a pipe of three inches bore sufficient to carry off the rain that falls on a square of 20 feet, because we never saw such a pipe glutted by any shower; so we may judge a conductor of an inch diameter, more than sufficient for any stroke of lightning that will fall on its point. It is true, that if another deluge happen wherein the windows of heaven are to be opened, such pipes may be unequal to the falling quantity; and if God for our sins should think fit to rain fire upon us, as upon some cities of old, it is not expected that our conductors of whatever size, should secure our houses against a miracle. Probably as water drawn up into the air and there forming clouds, is disposed to again in rain by its natural gravity, as soon as a number of particles sufficient to make a drop can get together; so when the clouds are (by whatever means) over or undercharged with the electric fluid, to a degree sufficient to attract them towards the earth, the equilibrium is restored, the difference becomes great beyond that degree. Mr. Lane's electrometer, for limiting precisely the quantity of a shock that is to be administered in a medical view, may serve to make this more easily intelligible. The discharging does by a gradual approach the conductor to the distance intended, but there remains fixed. Whatever power there may be in the glass globe to collect the fulminating fluid, and whatever capacity of receiving and accumulating it there may be in the bottle or glass jar; yet neither the accumulation nor the discharge ever exceeds the due quantity. Thus, were the clouds always at a fixed distance from the earth, all discharges would be made when the quantity accumulated was equal to the distance: there is a circumstance which by occasionally lessening the distance, lessens the discharge; to wit, the moveableness of the clouds, and their being drawn nearer to the earth by atmospheric electricity: so that discharges are thereby rendered frequent and of course violent. Hence whatever the quantity may be in nature, whatever the

power in the clouds of collecting it; yet an accumulation and force beyond what mankind has hitherto been acquainted with is scarce to be expected.*

B. F.

August 27, 1772.

To Professor Landriani, Italy.

On the Utility of Electrical Conductors.

PHILADELPHIA, Oct. 14, 1772.

I HAVE received your excellent work upon the Utility of Electrical Conductors, which you had the goodness to send me. I read it with great pleasure, and beg you to accept my sincere thanks for it.

Upon my return to my country, I found the number of conductors much increased, many proofs of their efficacy in preserving houses from lightning having demonstrated their utility. Among other instances, my own house was one day struck by lightning, which occasioned the neighbours to run in to give assistance, in consequence of its being on fire. But no damage was done, and my family was only found a good deal frightened with the violence of the explosion.

Last year, my house being enlarged, the conductor was obliged to be taken down. I found, upon examination, that the pointed termination of copper, which was originally nine inches long, and about one third of an inch in diameter at its thickest part, had almost entirely melted; and that the connexion with the rod of iron below was very slight. Thus, in the course of time, this invention has proved of use to the author of it, and has added this personal advantage to the pleasure he before received, from having been useful to others.

Mr. Rittenhouse, an astronomer, informed me having observed with his excellent telescope, many conductors that are within the view of his eye, he has remarked in various instances, that the points were melted in many places. There is no example of a house, provided with a perfect conduct-

* The immediate occasion of the dispute between the advocates of pointed and blunt conductors of lightning, arose as follows.—A powder mill having blown up at Brackley, in consequence of its being struck with lightning, the English board of ordinance applied to their partner, Mr. Wilson, of some note as an electrician, for a means to prevent accidents to their magazines. Mr. Purfleet, having advised a blunt conductor, and Mr. Franklin's opinion formed the subject of a dispute, was the spot, as it is pointed out; the dispute referred in 1772 to the Royal Society, and by them as usual, to a committee, who, after consultation, prescribed a pointed conductor, and Mr. Franklin's theory of a harmless stroke of lightning, having under particular circumstances, upon one of the buildings and as it was in 1777; the subject came again into violent agitation, and was again referred to the society, and by the society again referred to a new committee, which committee confirmed the decision of the first committee; it produced an extraordinary controversy in the Royal Society, and a series of pamphlets which, however, in the triumph of the Franklinian theory

or, which has suffered any considerable damage; and even those which are without them have suffered little, since conductors have become common in this city.

R. FRANKLIN.

John Pringle, M. D.

On the Effects of Electricity in Paralytic Cases.
CHURCH-STREET, Dec. 31, 1787.

IN compliance with your request, I send you the following account of what I can at present recollect relating to the effects of electricity in paralytic cases, which I have fallen under my observation.

Some years since, when the newspapers made mention of great cures performed in Italy and Germany, by means of electricity, a number of paralytics were brought to me from different parts of Pennsylvania, and the neighbouring provinces, to be electrized, which I did for them at their request. My method was, to place the patient in a chair, on an electric stool, and draw a number of large strong sparks from all parts of the affected limb or side. Then I fully charged two six-gallon glass jars, each of which had about three square feet of surface coated; and sent the united shock of these through the affected limb or limbs, repeating the stroke commonly three times each day. The first thing observed, was an immediate greater sensible warmth in the lame limbs that had received the stroke, than in the others; and the next morning the patients usually related, that they had in the night felt a pricking sensation in the flesh of the paralytic limbs; and would sometimes show a number of small red spots, which they supposed were occasioned by those prickings. The limbs, too, were found more capable of voluntary motion, and seemed to receive strength. A man, for instance, who could not the first day lift the lame hand from off his knee, would the next day raise it four or five inches, the third day higher; and on the fifth day was able, but with a feeble languid motion, to take off his hat. These appearances gave great spirits to the patients, and made them hope a perfect cure; but I do not remember that I ever saw any amendment after the fifth day; which the patients perceiving, and finding the shocks pretty severe, they became discouraged, went home, and in a short time relapsed; so that I never knew any advantage from electricity in palsies that was permanent. And how far the apparent temporary advantage might arise from the exercise in the patients' journey, and coming daily to my house, or from the spirits given by the hope of success, enabling them to exert more strength in moving their limbs, I will not pretend to say.

Perhaps some permanent advantage might have been obtained, if the electric shocks had

been accompanied with proper medicine and regimen, under the direction of a skilful physician. It may be, too, that a few great strokes, as given in my method, may be so proper as many small ones; since by the account from Scotland of a case, in which two hundred shocks from a phial were given daily, it seems, that a perfect cure has been made. As to any uncommon strength supposed to be in the machine used in that case, I imagine it could have no share in the effect produced; since the strength of the shock from charged glass, is in proportion to the quantity of surface of the glass coated: so that my phials from those large jars, could receive much greater than any could be received from a phial held in the hand.

R. FRANKLIN.

Electrical Experiments on Amber.

Saturday, July 3, 1782.

To try, at the request of a friend, whether amber finely powdered might be melted and run together again by means of the electric fluid, I took a piece of small glass tube, about two inches and a half long, the bore about one twelfth of an inch diameter, the glass itself about the same thickness; I introduced into this tube some powder of amber, and with two pieces of wire nearly fitting the bore, one inserted at one end, the other at the other, I pressed the powder hard between them in the middle of the tube, where it stuck fast, and was in length about half an inch. Then leaving the wires in the tube, I made them part of the electric circuit, and discharged through them three times of my series of bottles. The result was, that the glass was broke into very small pieces, those dispersed with violence in all directions. As I did not expect this, I had not, as in other experiments, laid the paper on the glass to save my eyes, so several of the pieces struck my face smartly, and one of them cut my lip a little so as to make it bleed. I could see no part of the amber; but the tube where the tube lay was stained very black in spots, such might be made by a thick smoke forced on it by a blast, and the air would with a strong smell, somewhat like that from burnt gunpowder. Whence I imagined, that the amber was burnt, and exploded; gunpowder would have done in the same circumstances.

That I might better see the effect on amber, I made the next experiment in a tube formed of a card rolled up and bound strongly with packthread. Its bore was about one eighth of an inch diameter. I rammed powder of amber into this as I had done in the other, and as the quantity of amber was greater, I increased the quantity of electric fluid by discharging through it at once five rows of my bottles. On opening the tube, I

found that some of the powder had exploded, an impression was made on the tube, though it was not hurt, and most of the powder remaining was turned black, which I might be by the smoke forced through the burned part: some of it was hard; but as it powdered again when pressed by the finger I suppose that hardness not to arise from any parts in it, but merely from my ramming the powder when I charged the tube.

B. FRANKLIN.

To *Romayne, Esq. Cork, Ireland.*

(In the Electricity of the Fogs in *London.*)

London, April 22. 1768.

I HAVE received your very obliging and very ingenious letter by captain Kearney. Your observations upon the electricity of fogs, and the air in Ireland, and upon different circumstances of storms, appear very curious, and I thank you for them. There is not, in my opinion, any part of the earth whatever, which is, or can be, naturally in a state of negative electricity: though different circumstances may occasion an inequality in the distribution of the fluid, the equilibrium is immediately restored by means of an extreme subtlety, and of the excellent conductors with which the humid earth is amply provided. I am of opinion, however, that when a cloud, well charged positively, passes near the earth, it repels and forces down into the earth, that natural portion of electricity, which near its surface, and in buildings, trees, &c. as actually reduce them to a negative state before it strikes them. I am of opinion too, that the negative state in which you have frequently found the balls, which are suspended from your apparatus, is not always occasioned by clouds in a negative state; but more commonly by clouds positively electrified, which have passed over them, and which in their passage have repelled and driven off a part of the electrical fluid, which naturally existed in the apparatus; so that what remained the passing of the clouds, diffusing itself uniformly through the apparatus, the whole became reduced to a negative state.

If you have read my experiments made in continuation of those of Mr. Canton, you will readily understand this; but you may easily make a few experiments, which will clearly demonstrate. Let a common glass be warmed before the fire that it may continue very dry for some time; set it upon a table, and place upon it the small box made use of by Mr. Canton, so that the balls may hang a little beyond the edge of the table. Rub another glass, which has previously been warmed in a similar manner, with a piece of black or silk handkerchief, in order to electrify it. Hold then the glass above the little box,

at about the distance of three or four inches that part which is distant from the balls, and you will see the separate from other, being positively electrified by the natural portion of electricity, which is in the box, and which is driven to the further part of it by the repulsive power of the atmosphere in the excited glass. Touch the box near the little (the excited glass containing in the state) the balls will again unite; the quantity of electricity which has been driven from this part being drawn off by your finger. Withdraw then both your finger and the glass at the same instant, and the quantity of electricity which remained in the box, uniformly diffusing itself, the balls will again be separated; being now in a negative state. While things are in this situation, begin once more your glass, and hold it above the box, but near, you will find, that when brought within a distance, the balls will approach each other, being then in a natural state. In proportion the glass is brought nearer, they will again separate, being positive. When the glass is moved beyond them, and at some little further distance, they will unite again, being in a natural state. When it is entirely removed, they will separate again, being then made negative. The excited glass in this experiment may represent a cloud positively charged, which you see is capable of producing in this apparatus, without the least necessity for supposing any negative cloud.

I am nevertheless fully convinced, that there are negative clouds; because they sometimes absorb, through the medium of the apparatus, the positive electricity of a large jar, the hundredth part of which the apparatus would have not been able to receive or contain at once. In fact, it is not difficult to conceive, that a large cloud, highly charged positively, may draw smaller clouds to a negative when it passes above near them, by forcing a part of their natural portion of the fluid either to their inferior surfaces, whence it may strike the earth, or to the opposite side, whence it may strike to the adjacent clouds; so that when the large cloud has passed off to a distance, the small clouds remain in a negative state, exactly like the apparatus; the former (like the latter) being frequently insulated bodies, having communication neither with the earth with other clouds. Upon the same principle it may easily be conceived, in what manner a large negative cloud may render others positive.

The experiment which you mention, of filling your glass, is analogous which I made in 1751 or 1752. I had supposed in my preceding letters, that the pores of glass were smaller in the interior parts than near

the surface, and that on this account they prevented the passage of the electrical fluid. To prove whether this was actually the case or not, I ground one of my phials in a part where it was extremely thin, grinding it considerably beyond the middle, and very near to the opposite superficies, as I found, upon breaking it after the experiment. It was charged nevertheless after being ground, equally well as before, which convinced me, that my hypothesis on this subject was erroneous. It is difficult to conceive where the immense superfluous quantity of electricity on the charged side of a glass is deposited.

I send you my paper concerning meteors, which was lately published here in the *Philosophical Transactions*, immediately after a paper by Mr. Hamilton on the same subject.
B. FRANKLIN.

Mode of ascertaining, whether the Power, giving a Shock to those who touch either the Surinam Eel, or the Torpedo, be electrical.

1. Touch the fish with a stick of dry sealing-wax, or a glass rod, and observe if the shock be communicated by means of those bodies.

Touch the same fish with an iron, or other metalline rod.

If the shock be communicated by the latter body, and not by the others, it is probably not the mechanical effect, as has been supposed, of some muscular action in the fish, but of a subtle fluid, in this respect analogous at least to the electric fluid.

2. Observe further, whether the shock can be conveyed without the metal being actually in contact with the fish, and if it can, whether, in the space between, any light appear, and a slight noise or crackling be heard.

If so, these also are properties common to the electric fluid.

3. Lastly, touch the fish with the wire of a small Leyden bottle, and if the shock can be received across, observe whether the wire will attract and repel light bodies, and you feel a shock, while holding the bottle in one hand, and touching the wire with the other.

If so, the fluid, capable of producing such effects, seems to have all the known properties of the electric fluid.

Addition, 12th of August, 1772,

In consequence of the Experiments and Discoveries made in France by Mr. Walsh, and communicated by him to Dr. Franklin.

Let several persons, standing on the floor, hold hands, and let one of them touch the fish, so as to receive a shock. If the shock be felt by all, place the fish flat on a plate of metal, and let one of the persons holding hands touch his plate, while the person furthest from the

plate touches the upper part of the fish, with a metal rod: then observe, if the force of the shock be the same as to all the persons forming the circle, or is stronger than before.

Repeat this experiment with this difference: let two or three of the persons forming the circle, instead of holding by the hand, hold each an uncharged electrical bottle, so that the little balls at the end of the wires touch, and observe, after the shock, if the wires will attract and repel light bodies, and if a ball of cork, suspended by a long silk string between the wires, a little distance from the bottles, be alternately attracted and repelled by them.

To M. Dubourg,

On the Analogy between Magnetism and Electricity.

London, March 30, 1773

As to the magnetism, which seems produced by electricity, my real opinion is, that these two powers of nature have no affinity with each other, and that the apparent production of magnetism is purely accidental. The matter may be explained thus:

1st, The earth is a great magnet.

2dly, There is a subtle fluid, called the magnetic fluid, which exists in all ferruginous bodies, equally attracted by all their parts, and equally diffused through their whole substance; at least where the equilibrium is not disturbed by a power superior to the attraction of the iron.

3dly, This natural quantity of the magnetic fluid, which is contained in a given piece of iron, may be put in motion so as to be more rarefied in one part and more condensed in another; but it cannot be withdrawn by any force that we are yet made acquainted with, so as to leave the whole in a negative state, at least relatively to its natural quantity; neither can it be introduced so as to put the iron into a positive state, or render it plus. In this respect, therefore, magnetism differs from electricity.

4thly, A piece of soft iron allows the magnetic fluid which it contains to be put in motion by a magnetic force, so that being placed in a line with the magnetic pole of the earth, it immediately acquires the properties of a magnet; its magnetic fluid being drawn or forced from one extremity to the other; and this effect continues as long as it remains in the same position, one of its extremities becoming positively magnetised, and the other negatively. This temporary magnetism ceases as soon as the iron is turned east and west, the fluid immediately diffusing itself equally through the whole iron, as in its natural state.

5thly, The magnetic fluid in hard iron, or steel, is put in motion with more difficulty,

requiring a force greater than the earth to excite it; and when once it has been forced from one extremity of the steel to the other, it is not easy for it to return; and thus a bar of steel is converted into a permanent magnet.

6thly, A great heat, by expanding the substance of this steel, and increasing the distance between its particles, affords passage to the electric fluid, which is thus again restored to its proper equilibrium; the bar appearing no longer to possess magnetic virtue.

7thly, A bar of steel which is not magnetic, being placed in the same position, relatively to the pole of the earth, which magnetic needle assumes; and in this position being heated and suddenly cooled, becomes a permanent magnet. The reason is, that while the bar was hot, the magnetic fluid which it naturally contained was easily forced from one extremity to the other by the magnetic virtue of the earth; and that the hardness and condensation, produced by the cooling of the bar, retained it in this position without permitting it to return to its original situation.

8thly, The violent vibrations of the particles of a steel bar, when forcibly struck in the same position, separate the particles in such a manner during their vibration, that they permit a portion of the magnetic fluid to pass, influenced by the natural magnetism of the earth; and it is afterwards so forcibly retained by the re-approach of the particles when the vibration ceases, that the bar becomes a permanent magnet.

9thly, An electric shock passing through a needle in a like position, and dilating it for an instant, renders it, for the same reason, a permanent magnet; that is, not by imparting magnetism to it, but by allowing its proper magnetic fluid to put itself in motion.

10thly, Thus, there is not in reality more magnetism in a given piece of steel after it is become magnetic, than there was in it before. The natural quantity is only displaced or repelled. Hence it follows, that a strong apparatus of magnets may charge millions of bars of steel, without communicating to them any part of its proper magnetism; only putting in motion the magnetism which already existed in these bars.

I am chiefly indebted to that excellent philosopher of Petersburg, Mr. *Epinus*, for this hypothesis, which appears to me equally ingenious and solid. I say, chiefly, because, as it is many years since I read his book, which I have left in America, it may happen, that I may have added to or altered it in some respect; and if I have misrepresented any thing, the error ought to be charged to my account.

If this hypothesis appears admissible, it will serve as an answer to the greater part of your questions. I only one more to add,

that however great the force is of magnetism employed, you can only convert a

given portion of steel into a magnet of a force proportioned to its capacity of retaining its magnetic fluid in the new position in which it is placed, without letting it return. Now this power is different in different kinds of steel, but limited in all of them whatever.

B. FRANKLIN.

Dubourg & Alibard.*

Concerning the Mode of rendering Meat tender by Electricity.

My answer to your questions concerning the mode of rendering meat tender by electricity, can only be founded upon conjecture; for I have not experiments enough to warrant the facts. All that I can say at present is, that I think electricity might be employed for this purpose, and I shall state what follows as the observations which I make upon this subject.

It has been observed, that lightning, by rarefying and reducing into vapour the moisture contained in solid wood, in an oak, for instance, has forcibly separated its fibres, and broken it into small splinters; that by penetrating intimately the hardest metals, as iron, it has separated the parts in an instant, so as to convert a perfect solid into a state of fluidity: it is then improbable, that the same matter, passing through the vessels of animals with rapidity, should possess sufficient force to produce an effect nearly similar.

The flesh of animals, fresh killed in the usual manner, is firm, hard, and not in a very eatable state, because the particles adhere too forcibly to each other. At a certain period, the cohesion is weakened and in its progress towards putrefaction, which tends to produce a total separation, the flesh becomes what we call tender, or is in that state most proper to be used as our food.

It has frequently been remarked, that animals killed by lightning putrefy immediately. This cannot be invariably the case, since a quantity of lightning sufficient to kill, may not be sufficient to tear and divide the vessels and particles of flesh, and reduce them to that tender state, which is the prelude to putrefaction. Hence it is, that animals killed in this manner will keep longer than others. But the putrefaction sometimes proceeds with surprising celerity. A respectable person assured me, that he once knew a remarkable instance of this: a whole flock of sheep in Scotland, being closely assembled under a tree, were killed by a flash of lightning; and being rather late in the evening, the proprietor, desirous of saving something, sent persons early the next morning to flay them: but the putrefaction was such, and the stench so

* This letter has no date, but the one to which it is an answer is dated May 1, 1773.

abominable, that they had not the courage to execute their orders, and the bodies were accordingly buried in their skins. It is not unreasonable to presume, between the period of their death and that of their putrefaction, time intervened in which the might be only tender, and only sufficiently so to be served table. Add this, that persons, who have eaten of fowls killed by our feeble imitation of lightning (electricity) and immediately, have asserted, was remarkably tender.

The little utility of this practice has perhaps prevented its being adopted. For though sometimes happens, that a company unexpectedly arriving at a country-house, or a confluent of travellers to an inn, may render it necessary, for immediate use; yet travellers have commonly a good appetite, little been paid to the trifling inconvenience of having their meat a little tough. As this kind of death is nevertheless more sudden, and consequently less severe, than any other, if this should operate as a motive with compassionate persons to employ it for animals sacrificed for their use, they may conduct the process thus:

Having prepared a battery of six large glass jars (each from 20 to 24 pints) as for the Leyden experiment, and having established a communication, as usual, from the interior surface of each with the prime conductor, and having given them a full charge (which with a good machine may be executed in a few minutes, and may be estimated by an electrometer) a chain which communicates with the exterior of the jars must be wrapped round the thighs of the fowl; after which the operator, holding it by the wings, turned back and made to touch behind, must raise it so high that the head may receive the first shock from the prime conductor. The animal dies instantly. Let the be immediately cut off to make it bleed, when it may be plucked dressed immediately. quantity of electricity is supposed sufficient for a turkey of ten pounds' weight, and perhaps for a lamb. Experience alone will inform us of the requisite proportions for animals of different forms and ages. not less will be required to render a small bird, which is very old, tender, than for a larger one, which is young. It is easy to furnish the requisite quantity of electricity, by employing a greater or less number of jars. As six jars, however, discharged once, are capable of giving a very violent shock, the operator must be very circumspect, lest he should happen to make the experiment on his own flesh, instead of that of the fowl.

R. FRANKLIN.

To M. Dabour.

In Answer to Queries concerning the choice of Glass for the Leyden experiment

LONDON, June 1, 1773

SIR,—I wish, with you, some chemist (who should, if possible, be the same time an electrician) would, in pursuance of excellent hints contained in your letter, undertake to work upon glass with view you have recommended. By of a perfect knowledge of substance, with respect to its electrical qualities, might proceed with certainty, as well in making our own experiments, as in repeating those which have been made by others in tries, which I believe have frequently been attended with different success on account of differences in the glass employed, thence occasioning frequent misunderstandings and contrariety of opinions.

There is another circumstance desired with respect glass, and that it should not be subject to break when highly charged in the Leyden experiment. I have eight jars broken out of twenty, and at another time, twelve out of thirty-five. A similar loss would greatly discourage electricians desirous of accumulating a great power for certain experiments.—We have never been able hitherto to for the cause of such misfortune. The first idea which occurs is, that the positive electricity, being accumulated on side of the glass, rushes violently through it, in order to supply the deficiency on the other side, and to re-establish the equilibrium. This however, I cannot conceive to be the true reason, when I consider, that a great number of jars being united, so as to be charged and discharged at the same time, breaking of a single jar will discharge the whole; for, the accident proceeded from the weakness of the glass, it is not probable, that eight of them should be precisely of the same degree of weakness, as to break every one some instant, it being more likely the weakest should break first, and, by breaking, secure the rest; and again, when it is necessary to produce a certain effect, by means of the whole charge passing through a determined circle (as, for instance, melt a wire) if the charge, instead of passing this circle, rushed through sides of the jars, intended effect would be produced; which, however, contrary to fact. For these I suspect, that there is, in the substance of the glass, either some little globules of air, or some portions of unvitrified sand or salt, into quantity of the electric fluid may be forced during charge, and there till the general discharge; and that force

being suddenly withdrawn, the elasticity of the glass in which it is enclosed, being to burst hastily without breaking the glass. I offer this only as a conjecture, which I leave to others to examine.

The globe which I thought that could not be excited, though it was from the same glass-house which furnished the other excellent globes in my possession, was not of the same frit. The glass which was usually manufactured there, was rather of the green kind, and chiefly intended for drinking-glasses and bottles; but the proprietors being desirous of attempting a trial of white glass, the globe in question was of this frit. The glass not being of a perfect white, the proprietors were dissatisfied with it, and abandoned the project. I suspected that too great a quantity of salt was admitted into the composition; but I am no judge of these matters.

FRANKLIN.

Miss Stephenson.

Concerning the Leyden Bottle.

LONDON, 1752.

I must retract the charge of idleness in your studies, when I find you have gone through the doubly difficult task of reading so big a book, on an abstruse subject, and in a foreign language.

In answer to your question concerning the Leyden phial.—The glass that holds the bottle receives and conducts away the electric fluid that is driven out of the outside by the repulsive power of that which is forced into the inside of the bottle. As long as that power remains in the situation, it must prevent the escape of what it expelled; though the glass would readily supply the quantity if it could be received.

B. FRANKLIN.

Physical and Meteorological Observations, Conjectures, and Suppositions.—Read at the Royal Society, June 3, 1752.

The particles of air are kept at a distance from each other by their mutual repulsion.

Every three particles, mutually and equally repelling each other, must form an equilateral triangle.

All particles of air gravitate towards earth, which gravitation compresses them, and shortens the sides of the triangles, otherwise their mutual repellency would force them to greater distances from each other.

Whatever particles of other matter (not endowed with repellency) are supported by air, adhere to the particles of air, and be

supported by them; for in the vacancies there is nothing they can rest on.

Air and water mutually attract each other. Hence water will dissolve in air, as salt in water.

The specific gravity of matter is not altered by dividing the matter, though the superficies be increased. Sixteen leaden bullets, of an ounce each, weigh as much in water as one of a pound, whose superficies is less.

Therefore the supporting of salt in water is not owing to its superficies being increased.

A lump of salt, laid at rest at the bottom of a vessel of water, will dissolve therein, and its parts move every way, till equally diffused in the water, therefore there is a mutual attraction between water and salt. Every particle of water assumes as many of salt as it can adhere to it; when more is added, it precipitates, and will not remain suspended.

Water, in the same manner, will dissolve in air, every particle of air assuming one or more particles of water. When too much is added, it precipitates in rain.

But there not being the same contiguity between the particles of air and of water, the solution of water in air is not carried on without a motion of the air, so as to cause a fresh accession of dry particles.

Of a fluid, having more of what it dissolves, will communicate to other parts that have less. Thus very salt water, coming in contact with fresh, communicates its saltiness till all is equal, and the sooner if there is a little motion of the water.

Even earth will dissolve, mix with air. A stroke of a horse's hoof on the ground, in a hot dusty road, will raise a cloud of dust. But shall, if there be a light breeze, expand every way, till perhaps near as big as a house. It is not by mechanical motion communicated to the particles of dust by the hoof, that they fly so far, but by the wind, that they spread so wide; but the air, being ground, more heated by the hot dust struck into it, is rarefied and rises, and in rising mixes with the cooler air, and communicates of its dust to it, and it is at length so diffused as to become invisible. Quantities of dust are thus carried up in dry showers wash it from the air, and bring it down again. For water attracting it stronger, quits the air, and adheres to the water.

Air, suffering continual changes in the degrees of its heat, from various circumstances, and consequently, changes in its specific gravity, must therefore be in continual motion.

A small quantity of fire mixed with water (or degree of heat therein) weakens the cohesion of its particles, that those on the surface easily quit it, and adhere to the particles of

Air ^{being} heated will support a greater quantity of water invisibly than cold air; for its particles being by heat repelled to a greater distance from each other, thereby more easily keep the particles of water that ^{are} annexed to them from running into cohesions that would obstruct, refract, or reflect ^{the} light.

Hence when we breathe in warm air, though the same quantity of moisture may ^{be} taken up ^{by} the lungs, as when we breathe in cold air, yet that moisture is not so visible.

Water being extremely heated, i. e. to the degree of boiling, its particles in quitting it so repel each other, as to take up vastly more ^{than} before, ^{by} that repulency support themselves, expelling the air from the space they occupy. That degree of heat being lessened, they again mutually attract, and having no air particles mixed ^{with} adhere to, by which they might ^{be} supported ^{at} kept at a distance, they instantly fall, coalesce, and become ^{liquid} again.

The water commonly ^{found} in our atmosphere never receives such a degree of heat from the sun, or other cause, as water has ^{when} boiling; it is not, therefore, supported by such heat, but by adhering to air.

Water being dissolved in, and adhering ^{to} air, that air will not readily take up oil, because of the mutual repulency between water and oil.

Hence cold oils evaporate but slowly, the air having generally a quantity of dissolved water.

Oil being heated extremely, the air ^{near} approaches ^{the} surface will be also heated extremely; the ^{oil} then quitting it, ^{it} ^{and} carry off the oil, which can now adhere ^{to} it. Hence the quick evaporation of oil heated to a great degree.

^{Being} dissolved in air, the particles ^{of} which ^{adhere} will ^{take} up water.

Hence the suffocating ^{smell} of air impregnated with burnt grease, as from snuffs of candles and the like. A certain quantity of moisture should ^{be} every moment discharged and taken away from the lungs; air that has been frequently breathed, is already over-loaded, and, for that reason, can take no more, ^{it} will not answer the end. Greasy air ^{is} fuses to touch it. In ^{such} cases suffocation ^{is} of the discharge.

Air will ^{support} many other substances.

A particle of air loaded with adhering water, ^{is} any other matter, is heavier ^{than} before, and would descend.

The atmosphere supposed ^{to} rest, a loaded descending particle ^{is} with a force on the particles it ^{is} between, or ^{is} with, sufficient to overcome, in some degree, their mutual repulency, and push them nearer to ^{each} other.

Thus, supposing the particles A B C D, ^{are} other near ^{to} ^{at} the distance caused by their mutual repulency (confined by their ^{mutual} gravity) if A would descend to ^{the} it must pass between ^{the} and c; when it comes between ^{the} and c, it will be ^{repelled} them than before, and must either ^{be} pushed them ^{apart} and a, contrary ^{to} mutual repulency, or pass through by a force exceeding its repulency with them. ^{It} then approaches ^{the} and, to move it out of the way, ^{it} ^{with} force ^{overcome} its repulency with the ^{lower} lower particles, by which it is kept in its present situation.

Every particle of air, therefore, will bear any load inferior ^{to} force of these repulsions.

Hence the support of fogs, mists, clouds.

Very warm air, clear, though supporting a very great quantity of moisture, will grow turbid and cloudy on the mixture of colder air, as foggy ^{and} air will grow clear by warming.

Thus the ^{sun} shining on ^a morning fog, dissipates it; clouds ^{are} seen to waste in ^a sun-shiny day.

^{The} cold condenses ^{the} renders visible the ⁱⁿ tankard ^{the} decanter filled with cold water will condense the ^{moisture} of warm clear air ^{near} its outside, where it becomes visible ^{as} dew, coalesces into drops, descends in little streams.

The sun heats the air of our atmosphere most near the surface of the earth; for there, ^{the} direct rays, there are many refractions. Moreover, the earth itself being heated, communicates of ^{its} heat to the neighbouring air.

The higher regions, having only the direct rays of the sun passing through them, ^{are} comparatively very cold. Hence the cold air on the tops of mountains, and snow on some of them all the year, ^{is} in the torrid

^{the} Hence hail in ^{the}

^{The} the atmosphere were, all of it (both above and below) always of the ^{same} temper ^{ature} to cold ^{or} heat, then the upper air would always be rarer than the lower, because the pressure on it is less; consequently lighter, ^{it} therefore would keep ^{its} place.

^{The} the upper air may be more condensed by cold, than the lower air by pressure; the lower ^{air} expanded by heat, ^{the} the upper for want of pressure. ^{In} such case the ^{upper} air ^{becomes} the heavier, ^{the} lower ^{is} lighter.

The lower region of air being heated and expanded heaves up, and supports for some time the colder heavier air above, ^{the} ^{the} conti-

nue to support it while the equilibrium is kept. supported in an inverted open glass, the equilibrium is maintained by the equal upwards of air below; equilibrium by breaking, the descends the heavier side, and the air into its place.

The heavy cold air over a heated country, becoming by unequally supported, or unequal its weight, the heaviest part first, impetuously. Hence gusts after heats, hurricanes hot. Hence the air of gusts hurricanes cold, though in climates and seasons; coming from above.

The air descending above, it penetrates our warm region full of watery particles, condenses them, renders them visible, forms a cloud dark, overcasting sometimes, once, large extensive; sometimes, when seen at a distance, small first, gradually increasing; the cold edge, or surface of the cloud, condensing the vapours next it, which form smaller clouds that join it, increase its bulk, it descends with the wind and its acquired weight, draws nearer the earth, grows denser with continual additions of water, and discharges heavy showers.

Small black clouds thus appearing in a clear sky, in hot climates, portend storms, and warn seamen to hand their sails.

The earth, turning on its axis about twenty-four hours, the equatorial parts move about fifteen miles in a minute; in northern and southern latitudes this motion is gradually less to the poles, and there nothing.

If there a general calm the face of the globe, it must by the air's moving in every part as fast as the earth or sea it moves.

He that sails, or rides, has insensibly the same degree of motion as the ship or coach with which is connected. If the ship strikes the shore, the coach stops suddenly, the motion continuing in the man, he is thrown forward. If were to jump from land into a swift sailing ship, would be thrown backward (or towards the stern) not having at first motion of the ship.

that travels by sea land, towards the equinoctial, gradually acquires motion; from it, loses.

if a were taken up from latitude (where suppose the earth's surface to move twelve miles per minute) immediately set down at equinoctial, without changing the motion he had, his heels would be struck up, he would westward. If up from the equinoctial, and set down in latitude 40, would eastward.

The air under equator, between the tropics, being constantly and

fied by the rises. Its place supplied by from northern and southern latitudes, which coming from parts wherein the earth and air had less motion, and suddenly quiring the quicker motion of the equatorial earth, appears an east wind blowing westward, the earth moving from west to east, and slipping under the air.*

Thus, when we ride in a calm, it seems a wind against us: if ride with the wind, and faster, will a small wind.

The air rarefied between the tropics, rising, must flow in the higher region north and south. Before it rose, had acquired the greatest motion the earth's rotation could give it. retains some degree of this motion, and descending in higher latitudes, where the earth's motion less, will appear a westerly wind, yet tending towards the equatorial parts, to supply the motion by the air of the lower regions flowing thitherwards.

Hence our general cold winds are about north west, cold gusts the.

The air in sultry weather, though not cloudy, has a kind of haziness in it, which makes objects at a distance appear dull and indistinct. haziness is occasioned by the great quantity of moisture equally in that air. When, by the cold wind blowing down among it, it is condensed into clouds, falls in rain, the air becomes purer clearer. Hence, after gusts, distant objects appear distinct, their figures sharply terminated.

Extreme cold winds seal the surface of the earth, by carrying off fire. Warm winds afterwards blowing that frozen surface will be chilled by it. Could frozen surface be turned under, and warmer turned up from beneath it, those warm winds would not be chilled much.

The surface of the earth is also sometimes much heated by the sun: and such heated face not being changed heats the air that over it.

Seas, lakes, and great bodies of water, agitated by the winds, continually change faces; the cold surface in winter is turned under by the rolling of the waves, and is turned up; in summer, the is turned under, and colder turned up. Hence equal temper of sea-water, and the air over it. Hence, in winter, winds from the sea seem warm, winds from the land cold. In summer the contrary.

Therefore north-west of us, as they are so much frozen, nor so apt to

* See a paper on this subject, by late ingenious Mr. Huxley, in the Philosophical Transactions where in this hypothesis for explaining the winds appeared.

† In Pennsylvania.

freeze as the earth, rather moderate than in-
 — coldness of our winter winds.

The air over — sea being warmer, — therefore — in winter than the air over the frozen land, — may be another cause of our general N. W. winds, which blow off to sea — right angles from our North-American coast. The warm light sea air rising, the heavy cold — air pressing into its place.

Heavy — descending, frequently — eddies, or whirlpools, as is seen in a fannel, where the water acquires a circular motion, receding every way from a centre, and leaving a vacancy in the middle, greatest above, and lessening downwards, like a speaking trumpet, its big — upwards.

Air descending, or ascending, may form the — kind of eddies, or whirlings, the parts of air acquiring a circular motion, and receding from the middle of the circle by a centrifugal force, and leaving there a vacancy; if descending, greatest above, and lessening downwards; if ascending, greatest below, and lessening upwards; like a speaking trumpet, standing its big end on the ground.

When the — descends with a violence in some places, it may rise with equal violence in others, and form both kinds of whirlwinds.

The air in its whirling motion receding every way from the centre or axis of the trumpet leaves there a vacuum, which cannot be filled through the sides, the whirling air, as an arch, preventing; it must then press in at the open ends.

The greatest pressure inwards must be at the lower end, the greatest weight of the surrounding atmosphere being there. The air entering rises within, — carries up dust, leaves, and even heavier bodies that happen in its way, as the eddy, or whirl, passes over land.

If it passes over water, — weight of the surrounding atmosphere forces up the water into the vacuity, part of which, by degrees, joins with the whirling air, and adding weight and receiving accelerated motion, recedes still farther from the centre or axis of the trump, as the pressure lessens; — at last, as the trump widens, is broken into small particles, and so united with air as to be supported by it, and become black clouds — the top of the trump.

Thus — eddies may — whirlwinds at land, water-spouts — sea. A body of water so raised, may be suddenly let fall, when the motion, &c. has not strength to support it, or — whirling arch is broken so as to admit the air: falling in the sea, it is harmless, unless ships happen under it; but if in the progressive motion of the whirl it has moved from the sea, over the land, and then breaks, sudden, violent, and mischievous torrents are the consequences.

Perkins of Boston to Dr. Franklin.

On Water-Spouts.—Read — Royal Society,
 June 3, —

Boston, October 16, 1752.

I find by a word or two in your last,* that you are willing to be found fault with; which authorizes me to let you know what I am at a loss about in your — which is only in — article of the water-spout. I am in — whether water in bulk, or — broken into drops, — into — region of the clouds *per vortexem*; i. e. whether — be, in reality, what I call a di- — water-spout, I make no — of direct and inverted whirlwinds; your description of them, and the reason of the thing, are sufficient. I am sensible too, that they are very strong, and often move considerable weights. — I have — met with any historical accounts that seem exact enough to remove my scruples concerning the ascent above said.

Descending spouts (as I take them to be) are many times seen, as I take it, in the calms, between the sea and land trade-winds on the coast of Africa. These contrary winds, or diverging, I — conceive may occasion them, as it were by suction, making a breach in a large cloud. But I imagine they have, — same time, a tendency to hinder any direct or rising spout, by carrying off the lower part of the atmosphere as fast as it begins to rarefy; and yet spouts are frequent here, which strengthens my opinion, that all of them descend.

But however — be, I cannot — a force producible by the rarefaction and condensation of our atmosphere, in the circumstances of — globe, capable of carrying — ter, in large portions, into the region of the clouds. Supposing it to be raised, it would — too heavy — continue — beyond a considerable height, unless parted into small drops; and even then, by its centrifugal force, from the — of conveyance, it would — flung out of — circle, — scattered, like —

But I — not expatiate on these matters to you. I have mentioned my objections, and, as truth is my pursuit, shall — glad to — informed. I have seen few accounts of — whirl or eddy winds, and as little of the spouts; and these, especially, lame and poor things to obtain any certainty by. — you know any thing determinate that has been observed, I shall hope to hear from you; — also of any mistake in my thoughts. I have nothing to object to any other part of your

* A Letter on Inoculation, which is transferred to a subsequent part of this volume, that the papers on meteorological subjects may not be interrupted.

suppositions: and as to that of the trade-winds, I believe nobody can.

P. S. The figures in the *Philosophical Transactions* show, by several circumstances, that they all descended, though the [redacted] seemed to think they took [redacted] water.*

Dr. Perkins ■ Dr. Franklin.—Read ■ ■
Royal Society, June 24, [redacted]

BOERX, [redacted] ■ ■

In [redacted] enclosed, you have all I have to [redacted] of that [redacted]. It proved longer than I expected, so that I was forced to add a cover to it. I confess it looks like a dispute; but that is quite contrary to my intentions. The sincerity of friendship and esteem [redacted] my motives; nor do I [redacted] your scrupling [redacted] goodness of [redacted] intention. However, I [redacted] confess, I cannot tell exactly how far I [redacted] tuated by hopes of better information, in discovering [redacted] whole foundation of my opinion, which, indeed, is but an opinion, [redacted] I am very much [redacted] a loss about the validity of the [redacted]. I have not been able [redacted] differ from you in sentiment concerning any thing else in your *Suppositions*. In the present case I [redacted] open to conviction, and shall be the gainer when informed. If I am right, you will know that, without my adding any more. Too much [redacted] on a merely speculative matter, is but a robbery committed on practical knowledge.—Perhaps I am too much pleased [redacted] dry notions: however, by this you will see that I think it unreasonable to give you [redacted] trouble about them, than your leisure and inclination may prompt you to.—I am, &c.

Since my last [redacted] considered, that, [redacted] I [redacted] begun with reason of my dissatisfaction about the [redacted] of water in spouts, you would not be unwilling to hear the whole I have to say, and then you will know what I rely upon.

What occasioned [redacted] thinking all spouts descend, is that I found some did certainly do [redacted]. A difficulty appeared concerning the ascent of so heavy a body [redacted] water, by any force I was apprized of as probably sufficient. And, above all, a view of Mr. Stuart's portraits of spouts, in [redacted] *Philosophical Transactions*.

[redacted] observations [redacted] last will include the chief part of my difficulties.

[redacted] given [redacted] figures of a number observed by [redacted] the Mediterranean; all with some particulars which make [redacted] opinion, [redacted] well drawn.

The great spattering, which relations mention in the water where the spout descends, and which appears [redacted] all his draughts, I conceive [redacted] be occasioned by drops descending very thick and large into the place.

On the place of [redacted] spattering, arises the appearance of a bush, into the centre of which the spout [redacted] down. This [redacted] I [redacted] to be [redacted] by a spray, made by the force of these drops, which being uncommonly large and descending with unusual [redacted] by a [redacted] of wind descending from the cloud with them, increases the height of the spray: which wind being repulsed by the surface of the [redacted] rebounds and spreads; by the first rising [redacted] spray higher than it otherwise would go; and by the last making the top of the bush appear to bend outwards (i. e.) the cloud of spray is forced off from the trunk of [redacted] spout, and [redacted] backward.

The bush does the same where there [redacted] no appearance of a spout reaching it; [redacted] depressed in the middle, where the spout is expected. This, I imagine, [redacted] be from numerous drops of the spout falling into it, together with the wind I mentioned, by their descent. [redacted] beat [redacted] the rising spray in the centre.

This circumstance, of the [redacted] [redacted] outwards at the top, [redacted] not [redacted] agree with what I call a direct whirlwind, but consistent with the reversed; for a direct [redacted] would sweep the bush inwards; if, in that [redacted] any thing of a bush would appear.

The pillar of water, as they call it, from its likeness, I suppose to be only the end of the spout immersed in the bush, a little blackened by the additional cloud, and perhaps, appears to the eye beyond [redacted] real bigness, by a refraction in the bush, and which refraction may be the [redacted] of the appearance of separation, betwixt the part in the bush, and that above it. The part in the bush is cylindrical. [redacted] it [redacted] above (i. e.) the bigness the [redacted] from the top of the bush to the water. Instead of this shape, in [redacted] of a whirlwind, [redacted] must have been pyramidal.

Another thing remarkable, is, the curve [redacted] of them: this is easy to conceive, in case of descending parcels of drops through various winds, [redacted] till the cloud condenses [redacted] fast [redacted] to [redacted] down. [redacted] it were, *uno rivo*. But it is harder to [redacted] to conceive it in the [redacted] of water, that it should be conveyed along, [redacted] of [redacted] leaking or often dropping through the under side, in the prone part: and, should the [redacted] be conveyed so swiftly, and with such force, up into the cloud, as [redacted] prevent this, it would, by a natural disposition to move on in a present direction, presently straiten the curve, raising the shoulder very swiftly, till lost in the cloud.

Over every [redacted] of Stuart's figures, I [redacted] cloud: I [redacted] clouds [redacted] first, and [redacted] the spout; I do not know whether it be [redacted] all spouts, but suppose [redacted] is. Now, if whirlwinds carried up the water, I should [redacted] peep them in [redacted] weather, but not under a cloud; as in observable of whirlwinds; they come in [redacted] weather, not under [redacted] of

* [redacted] engraved representations of water-spouts [redacted] from the Philosophical Transactions, [redacted] given in [redacted] edition, [redacted] to [redacted] [redacted] plate on the [redacted] subject, [redacted] Dr. [redacted]

a cloud, nor in the night: since shade cools the air: but, on the contrary, violent winds often descend from the clouds; strong gusts which occupy small spaces: and from the higher regions, extensive hurricanes, &c.

Another thing is the appearance of the spout coming from the cloud. This I cannot account for on the notion of a direct spout, but in the real descending [] is easy. [] it, that the cloud begins first of all to pour out drops at that particular spot, or [] men; and, when [] of drops increases, so as to force down wind and vapour, the spout becomes so far as that goes opaque. I take it, that no clouds drop spouts, but such as make very fast, and happen to condense in a particular spot, [] perhaps [] coldest, [] gives a determination downwards, so as to make a passage through the subjacent atmosphere.

If spouts ascend, it is to carry up the warm rarefied air below, to let down all and [] that is colder above; and, if so, they must carry it through [] the cloud they go into (for that is cold and dense, I imagine) perhaps far into the higher region, making a wonderful appearance at a convenient distance to observe it, by the swift rise of a body of vapour, above [] region of the clouds. But as this has never been observed in any age, if it be supposable that is all.

I cannot learn by mariners, that any wind blows towards a spout more than any other way; [] blows towards a whirlwind, for a large distance round.

I suppose there has been no instance of the water of a spout being salt, when coming across any vessel at sea. I suppose too, that there have been no salt rains; these would make the case clear.

I suppose it is from some unhappy effects of these dangerous creatures of nature, that sailors have an universal dread on them, of breaking in their deck, should they come [] them.

I imagine spouts, in cold seasons, as Gordon's [] the Downs, prove the descent.

Query. Whether there [] always more or less cloud, first, where a spout appears?

Whether they [] not, generally, on the borders of trade-winds; and whether this is for, or against me?

Whether there be any credible account of a whirlwind's carrying up all [] water in a pool, or small pond: as when shoal, and the banks low, a strong gust might be supposed to blow it all out?

Whether a violent tornado, of a small extent, and other sudden and strong gusts, be not winds from above, descending nearly perpendicular; and, whether many that are called whirlwinds at sea, are any other than these,

and so might be called air-spouts, if they were objects of sight?

I overlooked, in its proper place, Stuart's No. 11, which is curious for its inequalities, and, in particular, the approach to breaking, which, if it would not be too tedious, I would have observed a little upon, in [] way, as, I think, this would argue against the ascent, &c. but I must pass it, not only for the reason mentioned, but [] of room besides.

As to Mr. Stuart's ocular demonstration of the [] in [] great perpendicular spout, the only one it [] I say, as to this, what I have written supposes [] mistaken, which, yet, I am far from asserting.

The force of an [] vortex, having less influence on the solid drops of water, [] on the interspersed cloudy [] makes the last whirl round swifter, though [] descend slower: and [] might easily deceive, without great care, the most unprejudiced person.

To Dr. Perkins.

Water-spouts and Whirlwinds compared—Read at the Royal Society, June 24. 1753

PHILADELPHIA, Feb. 4, 1753

I ought to have written to you, long since, in answer to yours of October 16, concerning [] water-spout; but [] partly, and partly a desire of procuring further information by inquiry [] my seafaring acquaintance, [] used [] postpone writing, from time to time, till I am now almost ashamed [] resume the subject, not knowing but you may have forgot what has been said upon it.

Nothing certainly, can be more improving to a searcher into nature, [] objections judiciously [] [] opinion, taken up, perhaps, too hastily: for such objections oblige him to re-study the point, consider every circumstance carefully, [] facts, make experiments, weigh arguments, and be slow in drawing conclusions. And hence a sure advantage results; for he either confirms a truth, before [] slightly supported; or discovers an [] receives instruction [] the objector.

In this view I consider the objections [] remarks you sent me, and thank you for them sincerely: but, how much soever my inclinations lead me to philosophical inquiries, I [] so engaged in business, public and private, that those more pleasing pursuits are frequently interrupted, and the chain of thought necessary to be closely continued in such disquisitions, is so broken and disjointed, that [] is with difficulty I satisfy myself in any of them: and I am now not much nearer a conclusion, in this matter of the spout, than when I first read your letter.

Yet, hoping we may, in time, sift out the

truth between us, I will send you my present thoughts, with some observations on your reasons on the accounts in the *Transactions*, and on other relations I have with. Perhaps, while I am writing, some new light may strike me, for I shall now be obliged to consider the subject with a little more attention.

I agree with you, that, by means of a vacuum in a whirlwind, water cannot be supposed to rise in large masses to the region of the clouds; for the pressure of the surrounding atmosphere could not force it up in a condensed body, or column, to a much greater height, than thirty feet. But if their really is a vacuum in the centre, or near the axis of whirlwinds, then, I think, water may rise in such vacuum to that height, or to a less height, as the vacuum may be less perfect.

I had not read Stuart's account, in the *Transactions*, for many years, before the receipt of your letter, and had quite forgot it; but now, on viewing his draughts, and considering his descriptions, I think they seem to favour my hypothesis; for he describes and draws columns of water, of various heights, terminating abruptly at the top, exactly as water would do, when forced up by the pressure of the atmosphere into an exhausted tube.

I must, however, no longer call it my hypothesis, since I Stuart had the same thought, though somewhat obscurely expressed, where he says, "he imagines this phenomenon may be solved by suction (improperly so called) or rather pulsion, as in the application of a cupping glass to the flesh, the air being first voided by the kindled flax."

In my paper, I supposed a whirlwind and a spout to be the same thing, and to proceed from the same cause; the only difference between them being, that the one passes over land, the other over water. I find, also, in the *Transactions*, that M. de la Pryme was of the same opinion; for he there describes spouts, as he calls them, which were seen at different times, at Hatfield, in Yorkshire, whose appearances in the air were the same with those of the spouts at sea, and effects the same with those of real whirlwinds.

Whirlwinds have generally a progressive, as well as circular motion; so had what is called the spout, at Topham, as described in the *Philosophical Transactions*, which also, by its effects described, to have been a real whirlwind. Water-spouts have, also, a progressive motion; some are greater, and sometimes less; in some violent, in others barely perceivable. The whirlwind at Warrington continued long in Acrement-Close.

Whirlwinds generally arise after calm heats: the same is observed of water-spouts, which are, therefore, most frequent in the summer. The

that happened in cold weather, in the Downs, described by Mr. Gordon in the *Transactions*, was, for that reason, thought extraordinary; he remarks withal, the weather, though cold when the spout appeared, was soon after much colder: as we find it, commonly, less warm after a whirlwind.

You agree, that the wind blows every way towards a whirlwind, from a large space round. An intelligent whale-man of Nantucket, informed me that three of their vessels, which were in search of whales, happening to be becalmed, lay sight of each other, at about a league distance, if I remember right, nearly forming a triangle: after some time, a water-spout appeared near the middle of the triangle, when a brisk breeze of wind sprung up, and every vessel made sail; and then it appeared to them all, by the setting of the sails, and the course each vessel stood, that the spout was to the leeward of every one of them; and they all declared it to have been so, when they happened afterwards in company, and came to confer about it. So that in this particular likewise, whirlwinds and water-spouts agree.

But, if that which appears a water-spout at sea, does sometimes, in its progressive motion, meet with and pass over land, and there produce all the phenomena and effects of a whirlwind, it should thence seem still more evident, that a whirlwind and a spout are the same. I send you, herewith, a letter from an ingenious physician of my acquaintance, which gives one instance of this, that fell within his observation.

A fluid, moving from all points horizontally, towards a centre, must, at that centre, either ascend or descend. Water being in a tub, if a hole be opened in the middle of the bottom, will flow from all sides to the centre, and there descend in a whirl. But, air flowing on and near the surface of land or water, from all sides, towards a centre, must at that centre ascend; the land or water hindering its descent.

If these concentrating currents of air be in the upper region, they may, indeed, descend in the spout or whirlwind; but then, when the united current reached the water or water, it would spread, and, probably, blow every way from the centre. There may be whirlwinds of both kinds, but from the commonly observed effect I suspect the one to be the most common: when the upper air descends it is, perhaps, in a greater body, extending wider, as in our thunder-gusts, and without much whirling; and, when air descends in a spout, or whirlwind, I should rather expect it would press the roof of a house inwards, or force in the tiles, shingles, or thatch, force a boat down into the water, or a piece of timber into the earth, that it would lift them up, and carry them away.

It has so happened, that I have not met with any accounts of spouts, that certainly descended; I suspect they are not frequent. To communicate those you mention. The apparent dropping of a pipe from the clouds towards the earth or sea, I will endeavour to explain hereafter.

The augmentation of the cloud, which, as I am informed, is generally, if not always the case, during a spout, seems to show an ascent, rather than a descent of the matter of which such cloud is composed; for a descending spout, one would expect, should descend. I own, however, cold air descending, may, by condensing the vapours in a lower region, form and increase clouds; which, I think, is generally the case in our thunder-guets, and, therefore, lay great stress on this argument.

Whirlwinds, spouts, always, though most commonly, in the day time. The whirlwind, which damaged a great part of Rome, June 11, 1749, happened in the night of that day. The was supposed to have been first a spout, for it is said to be beyond doubt, that gathered in the neighbouring sea, as it could be tracked from Ostia to Rome. I find this is in Père Boechovich's of it, as abridged in the Monthly Review December, 1750.

In account, the whirlwind is said to have appeared a very black, long, and lofty cloud, discoverable, notwithstanding the darkness of the night, by its continually lightning emitting flashes on all sides, pushing along with a surprising swiftness, and within four feet of the ground. Its general effects on houses, stripping off the roofs, blowing away chimneys, breaking doors and windows, forcing up the floors, and unroofing the rooms (some of these effects seem to agree well with a supposed vacuum in the centre of the whirlwind) the very rafters of the houses were dispersed, and hurled against houses at a considerable distance, &c.

It by an expression of Père Boechovich's, if the wind blew from sides towards the whirlwind; for, having carefully observed its effects, he concludes of all whirlwinds, "that their motion is circular, and their action attractive."

He observes, on a number of whirlwinds, &c. "that a common of them is, to carry up into the air, tiles, stones, and animals themselves, which happen to be in their course, and all kinds of bodies ceptionably, throwing them to a considerable distance, with great impetuosity."

Such effects seem to show a rising of air.

I will endeavour to explain my conceptions of this matter by figures, representing a plan and an elevation of a spout or whirlwind.

I would only first beg to be allowed two or three positions, in my

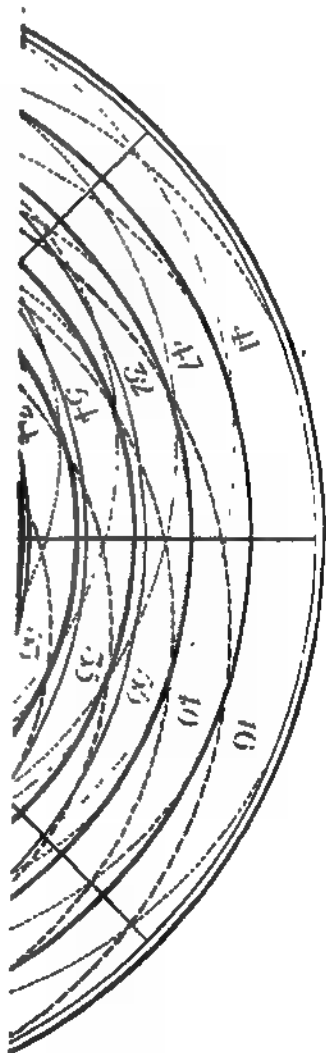
1. That the lower region of air is often more heated, and so more rarefied, than the upper; consequently, specifically lighter. The cold of the upper region is manifested by the hail which sometimes falls from it in a hot day.

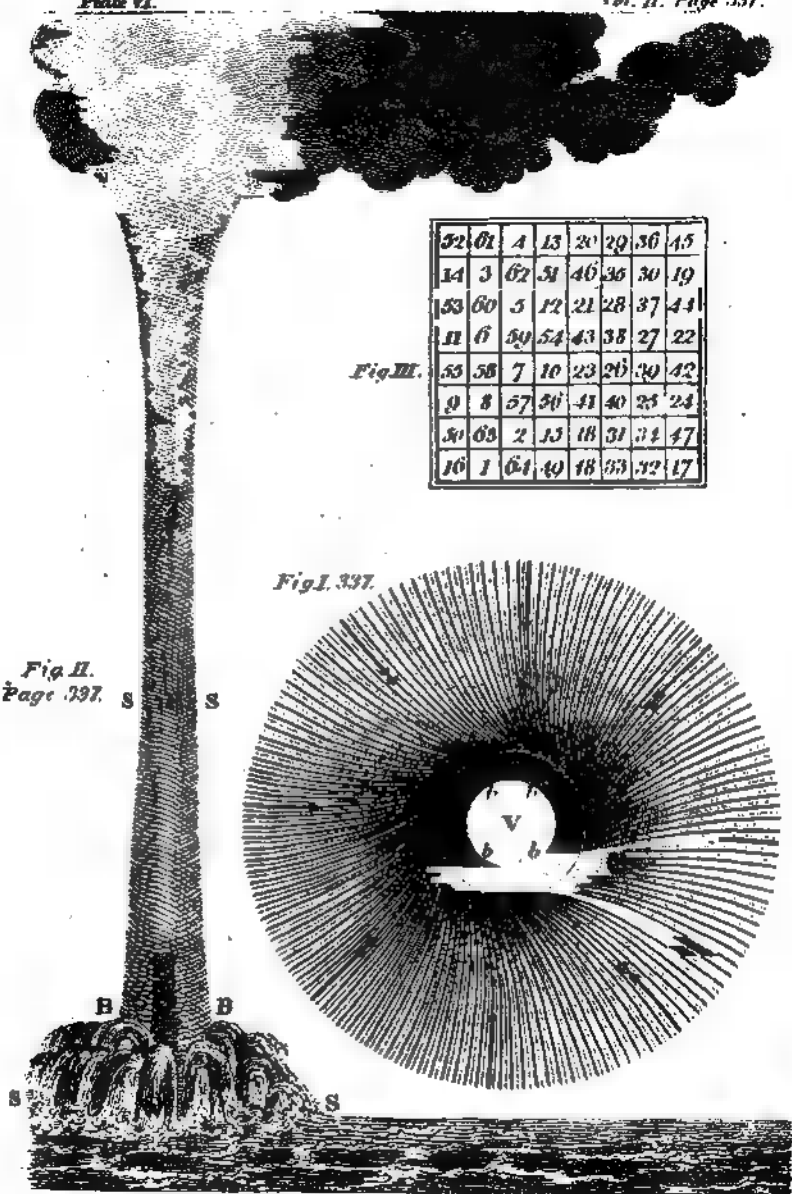
2. That heated air may be very moist, and yet the moisture so equally diffused and rarefied, as not to be visible, till colder air mixes with it, when it condenses, becomes visible. Thus our breath, invisible in becomes visible in winter.

Now let us suppose a tract of land, or sea, of perhaps sixty miles square, unscattered by clouds, and unsummed by winds, during great part of a summer's day, or, it may be, for several days successively, till it is violently heated, together with the lower region of air in contact with it, so that the said lower air becomes specifically lighter than the superincumbent higher region of the atmosphere, in which the clouds commonly float; us suppose, also, that the air surrounding this tract has not been much heated during those days, and therefore remains heavier. The consequence of this should be, as I conceive, that the heated lighter air, being pressed on all sides, must ascend, and the heavier descend; and, thus rising cannot be in all parts, or the whole area of the tract at once, for that would leave too extensive a vacuum, the rising will begin precisely in that column that happens to be the lightest, or most rarefied; and the warm air will flow horizontally from all points to this column, where the several currents meeting, and joining rise, a whirl is naturally formed, in the same manner as a whirl is formed in a tub of water, by the descending fluid flowing from all sides of the tub, to the hole in the centre.

And, several arrive this central rising column, with a considerable degree of horizontal motion, they cannot suddenly change it to a vertical motion; therefore they gradually, in approaching the whirl, decline from right curved circular lines, so, having joined whirl, they cease by a spiral motion, in the same manner as the water descends spirally through the hole in the tub before-mentioned.

Lastly, as lower air, and the surface, is most rarefied by the heat of the sun, that air is most acted on by the pressure of the surrounding cold and heavy air, which is to take its place; consequently, its motion towards the whirl is swiftest, and so the force lower part of whirl, is strongest, and the centrifugal force of its particles greatest; and hence the vacuum round the axis of the whirl should be greatest near the earth or sea, and be gradually diminished as it approaches the region of the clouds, till





52	61	4	13	20	29	36	45
14	3	62	51	46	35	30	19
53	60	5	12	21	28	37	44
11	6	59	54	43	38	27	22
55	58	7	10	23	26	39	42
9	8	57	56	41	40	25	24
50	63	2	15	18	31	34	47
16	1	64	49	18	33	32	17

Fig. III.

Fig. I. 337.

Fig. II.
Page 337.

distal
Sur
of air
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of a spout or whirlwind. It approaches region or clouds, till

it ends in a point, as at P, Fig. II. in the plate, forming a long and sharp cone.

In Fig. I. which is a plan or ground-plan of a whirlwind, the circle V. represents the central vacuum.

Between a a a a and b b b b I suppose a body of air, condensed strongly by the pressure of the currents moving towards it, from all sides without, and by its centrifugal force from within, moving round with prodigious swiftness, (having, if it were, the entire momenta of all the currents united in itself) and with a power equal to its swiftness and density.

It is a whirling body of air between a a a a and b b b b that rises spirally; by its force it builds up pieces, twists up great trees by the roots, &c. and, by its spiral motion, raises the fragments so high, till the pressure of the surrounding and approaching air diminishing, no longer confine them to the circle, or their own centrifugal force increasing, grows too strong for such pressure, when they fly off in tangent lines, as stones out of a sling, and fall on all sides, and at great distances.

If it happens on sea, the water under and between a a a a and b b b b will be violently agitated and driven about, and parts of it with the spiral current, and thrown about so as to form a bush-like appearance.

The circle is of various diameters, sometimes very large. If the vacuum passes over water, the water may rise in it to a body, or column, to the height of thirty-two feet. If it passes over houses, it may burst their windows or walls outwards, pluck off the roofs, and pluck the floors, by the sudden rarefaction of the air contained within such buildings; the outward pressure of the atmosphere being suddenly off; so the stopped bottle of air bursts under the exhausted receiver of the air.

Fig. II. is to represent the elevation of a water-spout, wherein I suppose to the cone, at first a vacuum, W W, the rising column of water, filled so much of S S S S, the spiral whirl of air, surrounding vacuum, and continued higher in a close column after the vacuum ends in the point P, till it reaches the cool region of air. B B, the bush described by Stuart, surrounding the foot of the column of water.

Now, I suppose the whirl of air will, at first be as the itself, though reaching, reality, from the water, to the region of cool air, in which our low summer thunder-clouds commonly float: but presently it will be at its extremities. At its lower end, by the agitation of the water, under the whirling part of the circle, between P and S forming Stuart's bush, and by the swelling and rising of the water, in the beginning vacuum, which is, at first, a small,

low, broad, whose top gradually rises and sharpens, as the force of the whirl increases. At its upper end it becomes visible, by the warm air brought up to the cooler region, where its moisture begins to be condensed into thick vapour, by the cold, and is seen first at A, the highest part, which being now cooled, condenses what rises at B, which condenses at C, and so on, densens what is rising at D, the cold, operating by the contact of the vapours faster in a right line downwards, the vapours can move in a spiral line upwards; they climb, however, and as by continual they grow denser, and, consequently, their centrifugal force greater, and being risen above the concentrating currents that compose the whirl, fly off, spread, and form a cloud.

It is easy to conceive, how, by this successive condensation from above, the spout appears to drop or descend, though the materials of which it is composed are all the while ascending.

The condensation of the moisture, contained in so great a quantity of warm air as may be supposed in a short time in this prodigiously rapid whirl, is perhaps, sufficient to form a great extent of cloud, though the spout should be over land, as those at Hatfield; if the land happens not to be very dusty, perhaps the lower part of the spout will scarce become visible at all; though the upper, or what is commonly called the descending part be very distinctly seen.

The same may happen at sea, in case the whirl is not violent enough to make a high vacuum, and the column, &c. In such case, the upper part A, B, C, D only will be visible, and the bush, perhaps, below.

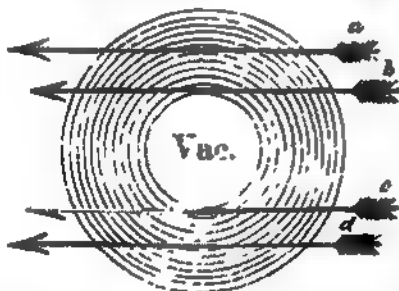
But if the whirl be strong, and there be much dust on the land, and the column W W raised from the water, then the lower part becomes visible, and sometimes united to the upper part. For the dust may be carried up in the spiral whirl, till it reach the region where the vapour is condensed, and rise with that even to the clouds: and the friction of the whirling air, on the sides of the column W W, may detach great quantities of water, break it into drops, and carry them in the spiral whirl mixed with the air; the heavier drops may, indeed, fly off, and fall, in a shower, round the spout; much of it will be broken into vapour, yet visible; thus, in both cases, by dust on land, and by water at sea, the whole tube may be darkened and rendered visible.

As the whirl weakens, the tube may (in appearance) separate in the middle; the column of water subsiding, and the superior condensed part drawing up to the cloud. Yet still the tube, the whirl of air, may remain entire, the only becoming invisible, as not containing visible matter.

Dr. Stuart says, "It was observable of all the spouts he saw, but more perceptible of the great one; that, towards the end, it began to appear like a hollow canal, only black in the borders, but white in the middle; and though at first it was altogether black and opaque, yet, now, one could very distinctly perceive the sea water to fly along the middle of this canal, as smoke up a chimney."

And Dr. Mather, describing a whirlwind, says, "a thick dark small cloud arose, with a pillar of light in it, of about eight or ten feet diameter, and passed along the ground in a tract not wider than a street, horribly tearing up trees by the roots, blowing them up in the air like feathers, throwing up stones of great weight to a considerable height in the air, &c."

These accounts, the use of water-spouts, the other of a whirlwind, seem, in this particular, to agree; what one gentleman describes as a tube, black in the borders, and white in the middle, the other calls a black cloud, with a pillar of light in it; the latter expression has only a little more of the marvellous, but the thing is the same; and it seems not very difficult to understand. When Dr. Stuart's spouts were full charged, that is when the whirling pipe of air was filled between *a a a a* and *b b b b*, Fig. I. with quantities of drops, and vapour torn off from the column *W* Fig. II, the whole was rendered



no dark, so that it could not be seen through; the spiral ascending motion discovered; but when the quantity lessened, the pipe became more transparent, and the ascending motion visible. For by inspection of the figure given in this page, representing a section of our spout, with the vacuum in the middle, it is plain that if we look at such a hollow pipe in the direction of the arrows, and suppose opaque particles to be equally mixed in the space between the two circular lines, the part between the arrows *a* and *b*, and that between the arrows *c* and *d*, will appear much darker than that between *b* and *c*, as there must be many more of those opaque particles in the line of vision across the sides, than across the vacuum. It is thus that a hair in a microscope evidently appears to be a pipe,

the sides showing darker than the middle. Dr. Mather's was probably filled with dust, the sides were very dark, but the vacuum rendering the whole transparent, he calls it a pillar of light.

It was in this more transparent part, between *b* and *c*, that Stuart could see the spiral motion of the vapours, whose lines on the nearest and inner side of the transparent part crossing the other, represented the ascending in a chimney; for the quantity being still too great in the line of sight through the sides of the tube, the motion could not be discovered there, and so they represented the solid sides of the chimney.

When the vapours reach in the pipe from the clouds near to the earth, it is no wonder now to those who understand electricity, that flashes of lightning should descend by the spout, as in that of Rome.

But you object, if water may be thus carried into the clouds, why have we not salt rains? The objection is strong and reasonable, and I know not whether I can answer it to your satisfaction. I never heard but of one salt rain, and that was where a spout passed pretty near a ship, so I suppose it to be only the drops thrown off from the spout, by the centrifugal force (as the birds were at Hatfield) when they had been carried so high as to be above, or to be too strongly centrifugal, for the pressure of the concurring winds surrounding it: and, indeed, I believe there can be no other kind of salt rain; for it has pleased the goodness of God so to order it, that the particles of air will not attract the particles of salt, though they strongly attract water.

Hence, though all metals, even gold, may be united with air, and rendered volatile, salt remains fixt in the fire, and no heat can force it up to any considerable height, or oblige the air to hold it. Hence, when salt rises, it will a little way, into air with water, there is instantly a separation made; the particles of salt adhere to the air, and the particles of salt fall down again, if repelled and forced off from the water by the power in the air; or, as metals, dissolved in proper menstrua, will quit the solvent when other matter approaches, and adhere to that, the water quits the salt, and embraces the air; the air will not embrace the salt, the water, otherwise salt rains would be salt, and every plant on the face of the earth be destroyed, with all the animals that depend on them for subsistence—He who hath proportioned and given proper quantities to all things, was not unmindful of this. Let us adore Him with praise and thanksgiving.

By some accounts of seamen, it seems the column of water *W W*, sometimes falls suddenly; and if it be, as some say, fifteen or twenty yards diameter, it is full with great

force, and they may well fear for their ships. By one account, in the *Transactions*, of a spout that fell at Colne, in Lancashire, one would think the column sometimes lifted off from the water, and carried over land, and there let fall in a body; this, I suppose, happens rarely.

Stuart describes his spouts as appearing no bigger than a mast, and sometimes less; but they were seen at a league or a half distance.

I formerly read of a Dampier, or some other voyager, that a spout, in its progressive motion, went over a ship becalmed, on the coast of Guinea, and first threw her down on one side, carrying away her foremast, then suddenly whipped her up, and threw her down on the other side, carrying away her main-mast, the whole was over in an instant. I suppose the first mischief was done by the fore-side of the whirl, the latter by the hinder-side, their motion being contrary.

I suppose a whirlwind, or spout, may be stationary, when the surring winds are equal; but if unequal, the whirl acquires a progressive motion, in the direction of the strongest pressure.

When the wind that gives the progressive motion becomes stronger below than above, or above than below, the spout will be bent, and, ceasing, straiten again.

Your queries, towards the end of your paper, appear judicious, and worth considering. At present I am not furnished with facts sufficient to make any pertinent answer to them; and this paper has already a sufficient quantity of conjecture.

Yours of accommodating the accounts to your hypothesis of descending spouts is, I own, ingenious, and perhaps that hypothesis may be true. I will consider it farther, but, as yet, I am not satisfied with it, though hereafter I may be.

Here you have my method of accounting for the principal phenomena, which I submit to your candid examination.

And as I now seem to have almost written a book, instead of a letter, you will think it high time I should conclude; which I beg leave to do, with assuring you that I am, &c.
B. FRANKLIN.

Dr. Mercer to Dr. Franklin.

Description of a Water-spout at Antigua.—Read at the Royal Society, June 24, 1756.

New-Brunswick, Nov. 11, 1752.

I AM favoured with your letter of the 2d instant, and shall, with pleasure, comply with your request, in describing (as well as my memory serves me) the water-spout I saw at Antigua; shall this, or any other service I can do, well repaid, if it contributes to your satisfaction in so curious a disquisition.

I had often seen water-spouts at a distance, and heard many strange stories of them, but never knew any thing satisfactory of their nature or cause, until that I saw at Antigua; which convinced me a water-spout is a whirlwind, which becomes visible in all its dimensions by the water it carries up with it.

There appeared not far from the mouth of the harbour of St. John's, two or three water-spouts, one of which took its course up the harbour. Its progressive motion was slow and unequal, not in a strait line, but, as it were, by jerks or starts. When just by the wharf, I stood about one hundred yards from it. There appeared in the water a circle of about twenty yards diameter, which, to me, had a dreadful, though pleasing appearance. The water in this circle was violently agitated, being whirled about, and carried into the air with great rapidity and noise, reflected a lustre, as if the sun shined bright on the spot, was more conspicuous, as there appeared a dark circle around it. When I made the shore, it carried up with the same violence shingles, staves,* large pieces of the roofs of houses, &c. and one small wooden house it carried from the foundation on which it stood, and carried it to the distance of fourteen feet, where it settled without breaking or oversetting; and, what is remarkable, though the whirlwind moved from west to east, the house moved from east to west.—Two or three negroes and a white woman, were killed by the fall of timber, which it carried up into the air and dropped again. After passing through the town, I believe it was soon dissipated; for, except tearing a large limb from a tree, and part of the roof of a sugar work near the town, I do not remember any further damage done by it. I conclude, wishing you success in your inquiry.

W. MERCER.

Dr. Perkins to Dr. Franklin.

Shooting Stars.—Read at the Royal Society, July 8, 1756.

Boston, May 14, 1755.

I RECEIVED your letter of April last, and thank you for it. Several things in it make me at a loss which side the truth lies on, and determine me to wait for farther evidence.

As to shooting-stars, as they are called, I know very little, hardly know what they are; I imagine them to be masses of electric fire from place to place in the atmosphere, perhaps occasioned by accidental pressures of a non-electric circumambient fluid, and so by

* I suppose shingles, &c. might be lying in quantities on the wharf, for from the northern colonies.—E.

propulsion, ■■■■■ by the circumstance of a distant quantity minus electrified, which it ■■■■■ to supply, and becomes apparent ■■■■■ its contracted passage through a non-electric medium. Electric fire in our globe ■■■■■ always in action, sometimes ascending, ■■■■■ descending, or passing ■■■■■ region to region. I suppose it avoids too dry ■■■■■ and therefore we never see these shoots ascend. ■■■■■ always has freedom enough ■■■■■ down unobserved, but, I imagine, ■■■■■ always so, to pass to distant climes and meridians less stored with it.

The ■■■■■ sometimes all one way, which, in the last case, they should be.

Possibly there may be collections of particles in our atmosphere, which gradually form, by attraction, either similar ones *per se*, or dissimilar particles, by the intervention of others. But then, whether they shoot or explode of themselves, or by the approach of ■■■■■ foreign collection, accidentally brought ■■■■■ by the usual commotions and interchanges of ■■■■■ atmosphere, especially when ■■■■■ higher ■■■■■ lower regions intermix, before change of ■■■■■ and weather, I leave.

I believe I have now said enough of what I know nothing about. If it should serve for your ■■■■■ or any ■■■■■ oblige you, it ■■■■■ all I aim at, and shall, at your desire, be always ready to say what I think, as I am sure of your candour.

Dr. Perkins to Dr. Franklin.

Water-spouts and Whirlwinds.—Read ■■■■■ the Royal Society, July 8, 1756.

Spouts have been generally believed as ■■■■■ from below, ■■■■■ the region of ■■■■■ clouds, and whirlwinds, the means of conveyance. The world has been very well ■■■■■ the ■■■■■ opinions, and prejudiced with respect to ■■■■■ observations about them. ■■■■■ of learning ■■■■■ capacity have had many opportunities ■■■■■ passing ■■■■■ regions where these phenomena ■■■■■ most frequent, but seem industriously ■■■■■ have declined any ■■■■■ of them, unless ■■■■■ danger, as ■■■■■ of mere impertinence in a case so clear and certain as their nature and manner of operation are taken to be. Hence it is has been very difficult ■■■■■ get any tolerable accounts of them. None but those they fell near ■■■■■ inform us ■■■■■ thing to ■■■■■ depended on; three or four such ■■■■■ follow, where the vessels were so near, that their crews could not ■■■■■ knowing something remarkable ■■■■■ respect to the ■■■■■ tters in question.

Captain ■■■■■ Wakefield, junior, passing the Straits of Gibraltar, ■■■■■ one fall by ■■■■■ side of his ship; it came down of a sudden, as they think, and all agree the descent was

Indies, had one come across the stern of his vessel, and passed away from him. The water came down in such quantity that the present capt. Melling, who was then a common sailor at the helm, says it almost drowned him, running into his mouth, ■■■■■ &c. and adds, that it tasted perfectly fresh.

One passed by the side of captain Howland's ship, so ■■■■■ ■■■■■ appeared pretty plain that the ■■■■■ descended from first to last.

Mr. ■■■■■ Spring ■■■■■ so ■■■■■ ■■■■■ the Straits of Malacca, that he could perceive it to ■■■■■ a ■■■■■ very thick rain.

All these ■■■■■ me, ■■■■■ was no wind drawing towards them, nor have I ■■■■■ any others that have observed such a wind.

It seems plain, by these few instances, that whirlwinds do ■■■■■ always attend spouts; and that the ■■■■■ really descends in some of them. ■■■■■ the following consideration, ■■■■■ confirmation of ■■■■■ opinion, may, perhaps, render it probable that ■■■■■ spouts are descending.

It ■■■■■ unlikely that there ■■■■■ be two ■■■■■ of spouts, ■■■■■ ascending ■■■■■ the other descending.

It has not yet been proved that any one spout ever ascended. A specious appearance is all that can be produced in favour of this; ■■■■■ those who have been most positive about it, were at more than a league's distance when they observed, ■■■■■ Stuart ■■■■■ others, if I am not mistaken. However, I believe ■■■■■ impossible ■■■■■ be certain whether water ■■■■■ descends ■■■■■ descend at half the distance.

It may not be amiss to consider the places where they happen most. These are such as are liable to calms from departing winds ■■■■■ sides, as ■■■■■ the borders of the equinoctial trade winds, calms ■■■■■ the ■■■■■ of Guinea, in the Straits of Malacca, &c. places where the under region of the atmosphere is drawn off horizontally. I think they ■■■■■ not come where the calms are without departing winds; and I take the reason to be, that such place ■■■■■ places where winds blow towards ■■■■■ another, ■■■■■ to whirlwinds, or other ■■■■■ cents of the lower region, which I suppose contrary to spouts. ■■■■■ the former are ■■■■■ to descents, which I take ■■■■■ necessary ■■■■■ their production. Agreeable ■■■■■ this, ■■■■■ seems reasonable to believe, that any Mediterranean sea should ■■■■■ more subject ■■■■■ spouts ■■■■■ others. The sea usually so called is so. The Straits of Malacca is ■■■■■ large gulphs may probably be so, in ■■■■■ latitudes; so the Red Sea, &c. ■■■■■ the heated lands ■■■■■ each ■■■■■ draw off the under region of ■■■■■ air, ■■■■■ the upper descend, whence sudden ■■■■■ water ■■■■■ may ■■■■■ place, and ■■■■■

Captain Langstaff, on ■■■■■ to the West

It seems to me, that the manner of their ap-

pearance and procedure, favour the notion of a

More or less of a cloud, as I am informed, always appears the place first; then a spattering on the surface of the water below; and when this is advanced to a considerable degree, the spout emerges from the cloud, and descends, and that, if the causes are sufficient, down to the places of spattering, with a roaring in proportion quantity of the discharge; then it abates, stops, sometimes more gradually, sometimes more suddenly.

I must observe a few things on these particulars, to show how they agree with my hypothesis.

The preceding cloud the place shows condensation, and, consequently, tendency downwards, therefore naturally prevent that, far as I can learn, a whirlwind is under a cloud, but in a clear sky.

The spattering may easily conceived to be caused by a stream of drops, falling with great force on the place, imagining the spout to begin so, when a sudden and great condensation happens in a contracted space, the Ox-Eye the of Guinea.

The spout appearing to descend from the cloud seems to be, by the of nearly contiguous drops bringing the air into consent, so as to carry down a quantity of the vapour of the cloud; and the pointed appearance makes may be from the descending course being in the middle, or centre of the spout: this naturally drawing the outer parts inward, and the to a point: and that will appear foremost that swiftest. The phenomenon of retiring and advancing. I think may be accounted for, by supposing the progressive motion to exceed or not equal the consumption of the vapour by condensation. Or more plainly thus: the descending vapour which forms the apparent spout, if it be slow in its progress downwards, is condensed fast as it advances, and appears at a stand; when it is condensed faster than it advances, it appears to retire; and vice.

Its duration, and manner of ending, are as the and vary by several accidents.

The cloud itself may be circumscribed stop it; as when, extending wide, it weighs down a distance round about, while a circle the spout being exacerated by the discharge, ascends and shuts up the passage. A new determination of wind may, perhaps, stop it too. Places liable to these are very liable to frequent and sudden alterations of it.

Such accidents as a clap of thunder, firing cannon, &c. may stop them, and the reason may be, that any shock of this kind may occasion the particles that are near cohering, immediately to do so; and then the whole, thus condensed falls at once (which is what I

suppose is vulgarly called the breaking of the spout) and the interval, between this period and that of the next set of particles being ready to unite, the spout up. So that if this reasoning is just, these phenomena agree with my hypothesis.

The usual temper of the air, at the time of their appearance, if I have a right information, is too; it being then pretty cool for the season and climate; and this is worth remark, because cool air is weighty, and will not ascend; besides, when the air grows cool, it shows that the upper region descends, and conveys the temper down; and when the tempers are equal, no whirlwind can place. Spouts have been known, the lower region has been really cold. Gordon's spout is the an instance of this—(vide *Philosophical Transactions*)—where the upper region probably not all cooler, if so cold as the lower: it was a cold day in the month of March, hail followed, but not snow, and it is observable, that not so much as hail follows or accompanies them in moderate seasons or climes, when and where they frequent. However, it is improbable, that just about the place of descent may be cooler than the neighbouring parts, and favour the wonderful celerity of condensation. But, after all, we all the under region to be ever so much the hottest, and a whirlwind to take place in it: suppose then the sea-water to ascend, it would certainly cool the spout, and then, query, whether it would not very much, if not wholly, obstruct its progress.

commonly rains when spouts disappear. if it did not before, which it frequently does not, by the best accounts I have had; but the cloud increases much faster after they disappear, and it soon rains. The first shows the spout to be a contracted rain, instead of the one that follows; and the latter that the cloud was not formed by ascending water, for then it would have ceased growing when the spout vanished.

However, it that spouts have times appeared after began to rain; but this is one proof of my hypothesis, viz. as whirlwinds do come under a cloud.

I forgot mention, that the of cloud, while the spout subsists, is no argument of of water, by the spout. thunder-clouds sometimes increase greatly while it rains very hard.

Divers effects of spouts seem not so well accounted for any other way by descent.

The bush round the feet of them seems to be a great of water made by the violence of descent, like that in great falls of from high precipices.

The great roar, like some inland falls, is so different from the roar of whirlwinds, by all accounts, as to be no ways compatible.

The throwing things from it with great force, instead of carrying them up into the air, is another difference.

There seems some probability that the sailors' traditional belief, that spouts may break in their decks, and so destroy vessels, might originate from some facts of that sort in former times. This danger is apparent on my hypothesis, but it seems not so on the other: and my reason for it is, that the whole column of a spout from the sea to the clouds cannot, in a natural way, even upon the largest supposition, support more than about three feet water, and from truly supposable causes, not above one foot, as may appear more plainly by and by. Supposing now the largest of these quantities to rise, it must be disseminated into drops, from the surface of the sea to the region of the clouds, or higher; for this reason it is quite unlikely to be collected into masses, or a body, upon its falling; but would descend in progression according to the several degrees of altitude the different portions had arrived at when it received this new determination.

Now that there cannot more rise upon the common hypothesis than I have mentioned, may appear probable, if we attend to the only efficient cause in supposed ascending spouts, viz. whirlwinds.

We know, that the rarefaction of the lower, and condensation of the upper region of air, are only natural causes of whirlwinds. Let us then suppose the former as hot as their greatest summer heat in England, and the latter as cold as the coldest of their winter. These extremes have been found there to alter the weight of the air one tenth, which is equal to a little more than three feet water. Were the case possible, and a whirlwind take place in it, it might act with a force equal to the mentioned difference. But as this is the whole strength, so much water could not rise; therefore we allow it due motion upwards, we must abate, at least, one fourth part, perhaps more, to give it such a swift ascension as some are usual. There are several difficulties occur, at least they are. As, whether this quantity would render the spout opaque? since it is plain that in drops it could do so. How, by what means it may be reduced enough? or, if the water be not reduced into vapour, what will suspend it in the middle of the clouds when exonerated there; and, if vapourised while ascending, can it be dangerous by what they call the breaking? For it is difficult to conceive how the power of a spout could be so suddenly place of a rarefying and disseminating

the sudden fall of the spout, or rather, the sudden ceasing of it, I accounted for, in my way, before. But it seems necessary to mention something I then forgot. Should

be said to do so (i. e.) to fall, because all the lower rarefied air is ascended, whence the whirlwind must cease, and its burden drop; I cannot agree to this, unless the air be observed on a sudden to have grown much colder, which I cannot learn has been the case. Or should it be supposed that the spout was, on a sudden, obstructed at the top, and this the cause of the fall, however plausible this might appear, yet no more water would fall than what was at the same time contained in the column, which is often, by many and the factory accounts to me, again far from being the case.

We are, I think, sufficiently assured, that only tons, but scores or hundreds of tons descend in one spout. Scores of tons more than can be contained in the trunk of it, should we suppose water to ascend.

But, after all, it does not appear that the above-mentioned different degrees of heat and cold concur in any region where spouts usually happen, nor, indeed, in any other.

Observations on the Meteorological Paper; by a Gentleman in Connecticut.—Read at the Royal Society, Nov. 4, 1758.

"Air and water mutually attract each other, (saith Mr. F.) hence water will dissolve in air, as salt in water." I think that it is demonstrated, that the supporting of water in air is owing to its superficies being increased, because "the specific gravity of air is not altered by dividing of it, any more than that of lead, sixteen bullets of which, of an ounce each, weigh as much in water as one of a pound." But yet, when this came to be applied to the supporting of water in air, I found an objection rising in my mind.

In the first place, I have always been loth to seek for any new hypothesis, a particular law of nature to account for any thing may be accounted for from the known general, and universal law of nature; it being an argument of the infinite wisdom of the Author of the world, to effect many things by a general law. Now I thought that the rising and support of water, in air, might be accounted for from the general law of gravitation, by only supposing the space occupied by the same quantity of water increased.

And, with respect to the lead, I queried in my own mind: whether if the superficies of a bullet of lead should be increased four or five fold by an internal vacuity, it would weigh the same in water as before. I thought if a pound of lead should be formed into a hollow globe, empty within, whose superficies should be four or five times as big as that of the solid lead when a solid lump, it would weigh as much in water as before. I supposed it would not. If this concavity were filled with water, perhaps it might; if

with air, it would weigh **■** least as much less, as **■** difference between the weight of that included air, and that of water.

Now although this would do nothing to account for the dissolution of salt in water, the **■** smallest lumps of salt being no more hollow spheres, or any thing of the like nature, than the greatest; yet, perhaps, **■** account for water's rising and being supported **■** air. **■** you know that such hollow globules, or bubbles, **■** up **■** the surface of the water, which even by the breath of our mouths, we can cause to quit the water, and rise in the air.

These bubbles I used to suppose to be the coats **■** water, containing within them air rarefied **■** expanded with fire, **■** that therefore, the more friction and dashing there is upon the surface of the waters, and the more heat and fire, the more they abound.

And I **■** to think, that although water **■** specifically heavier **■** air, yet such a bubble, filled only **■** fire and very rarefied air, may **■** lighter than a quantity of common air, of the **■** cubical dimensions, and, therefore, ascend; for **■** rarefied air enclosed, may more fall short of the same bulk of common air, in weight, than the watery coat exceeds a like bulk of **■** air in gravity.

This was the objection in my mind, though, I must confess, I know **■** how **■** account for **■** watery coat's encompassing the air, as above-mentioned, without allowing the attraction between air and water, which the gentleman supposes: **■** that I do not know but that this objection, examined by that sagacious genius, will **■** an additional confirmation of this hypothesis.

The gentleman observes, "that a certain quantity of moisture should be every moment discharged **■** away from the lungs; and hence **■** accounts for the suffocating nature of snuffs of candles, as impregnating the air with grease, between which and water there is a natural repulency; and of air that hath been frequently **■** in, which is overloaded with water, and, for that reason, can take no more air. Perhaps the same observation will account for the suffocating nature of damps in wells.

But then if the air can support and take off but such a proportion of water, and it is necessary that water be so taken off from the lungs, I queried with myself how it is we can breathe **■** an air full of vapours, so full as that they continually precipitated. Do not we see the air overloaded, and casting forth water **■** plentifully, when there is no suffocation?

The gentleman again observes, "That the air under the equator, and between the tropics, being constantly heated and rarefied by the sun, rises; its place is supplied by air from northern and southern latitudes, which, coming from parts where the air and earth had

less motion, and not suddenly acquiring the quicker motion of the equatorial earth, appears an east wind blowing westward; the earth moving from west to east, and slipping under the air."

In reading this, two objections occurred to my mind:—First, that it is said, the trade-wind doth not blow in the forenoon, but only in the afternoon.

Secondly, that either the motion of the northern and southern air towards the equator is so slow, as to acquire almost the same motion as the equatorial air when it arrives there, so that there will be no sensible difference; or else the motion of the northern and southern air towards the equator, is quicker, and must be sensible; and then the trade-wind must appear either as a south-east or north-east wind: south of the equator, a south-east wind; north of the equator, a north-east. For the apparent wind must be compounded of this motion from north to south, or vice versa; and of the difference between its motion from west to east, and that of the equatorial air.

Observations in **■** the foregoing.
—Read **■** the Royal Society, Nov. 4, 1755.

1st. **■** supposing a mutual attraction between the particles of **■** and air, is not introducing a **■** law of nature; such attractions taking place in many other known **■**

2dly. Water is specifically 850 times heavier than air. To render a bubble **■** water, then, specifically lighter **■** air, it seems to me that it must take up more than 850 times the space it did before it formed the bubble: **■** within the **■** either a vacuum or air rarefied more than 850 times. If a vacuum, would not the bubble be immediately crushed by the weight of the atmosphere? And no heat, we know of, will rarefy air any thing **■** much; much less **■** heat of the sun, or that of friction by the dashing on the surface of the water: besides, **■** ter agitated ever so violently produces no heat, as has been found by accurate experiments.

3dly. A hollow sphere of lead has a firmness and consistency in it, that a hollow sphere **■** bubble of fluid unfrozen water cannot be supposed to have. The lead may support the pressure of the water it is immersed in, but the bubble could not support the pressure of the air, if empty within.

4thly. **■** a visible bubble seen **■** rise in air? I have made many, when a boy, with soap-buds and a tobacco-pipe; but they all descended when loose from the pipe, though slowly, the air impeding their motion: they may, indeed, be forced **■** by a wind from below, but do not rise, of themselves, though filled with **■**

5thly. The objection relating to our breathing moist air seems weighty, and must be farther considered. The air that has been breathed has, doubtless, acquired an addition of the perspirable matter which nature intends to free the body from, and which would be pernicious if retained and returned into the blood: such air then may become unfit for respiration, as well for that reason, as on account of its moisture. Yet I should be glad to learn, by some experiment, whether a draft of air, two or three times inspired, and expired, perhaps in a bladder, has, or has not, acquired more moisture than our common air in the dampest weather. As to the precipitation of water in the air we breathe, perhaps it is not always a mark of that air's being overloaded. In the region of the clouds, indeed, the air must be overloaded if it lets fall its water in drops, which we call rain; but those drops may fall through a drier air near the earth; and accordingly we find that the hygroscope sometimes shows a less degree of moisture, during a shower, than at other times when it does not rain at all. The dew dampness, that settles on the insides of our walls and wainscots, seems more certainly to denote an air overloaded with moisture; and yet this is no sure sign: for, after a long continued cold season, if the air grows suddenly warm, the walls, &c. continuing longer their coldness, will, for some time, condense the moisture of such air, till they grow equally warm, and then they condense no more though the air is not become drier. And, on the other hand, after a warm season, if the air grows cold, though moister than before, the dew is not so apt to gather on the walls. A tankard of cold water will, in a hot and dry summer's day, collect a dew on its outside; a tankard of hot water will collect none in the moistest weather.

6thly. It is, I think, a mistake that the trade-winds blow only in the afternoon. They blow all day and all night, and all the year round, except in some particular places. The southerly sea-breezes on your coasts, indeed, blow chiefly in the afternoon; but the very long run from the west side of America to Guam, among the Philippine Islands, ships seldom have occasion to haul their sails, so equal and steady is the gale, and yet they make it in about 60 days, which could not be if the wind blew only in the afternoon.

7thly. It really is, which the gentleman justly supposes ought to be, on my hypothesis. In sailing southward, when you first enter the trade-wind, you find it north-east, or thereabouts, and it gradually grows more east as you approach the line. The same observation is made of its changing from south-east to east gradually, as you come from the southern latitudes to the equator.

Observations on the Meteorological Paper; sent by Cadwallader Colden, of New York, to B. Franklin.—Read at the Royal Society, Nov. 4, 1756.

THAT power by which the air expands itself, you attribute to a mutual repelling power in the particles which compose the air, by which they are separated from each other with some degree of force; now this force, on this supposition, must not only act when the particles are in mutual contact, but likewise when they are at some distance from each other. How can two bodies, whether they be great or small, act at any distance, whether that distance be small or great, without something intermediate on which they act? For if any body act on another, at any distance from it, however small that distance be, without some medium, to continue the action, it must act where it is not, which to me seems absurd.

It seems to me, for the same reason, equally absurd to give a mutual attractive power between any other particles supposed to be at a distance from each other, without any thing intermediate to continue their mutual action. I can neither attract nor repel any thing at a distance, without something between my hand and that thing, like a string, or a stick; nor can I conceive a mutual action without some middle thing, when the action is continued to some distance.

The increase of the surface of any body lessens its weight, both in air, and water, or any other fluid, as appears by the slow descent of leaf-gold in the air.

The observation of the different density of the upper and lower air, of heat and cold, is good, and I do not remember it is taken notice of by others; the consequences also are well drawn; but as to winds, they seem principally to arise from some other cause. Winds generally blow from some large body of land, or from mountains. Where I live, on the north side of the mountains, we frequently have a strong southerly wind, when they have as strong a northerly wind, or calm, on the other side of the mountains. The continual passing of the Hudson's River, through the mountains, give frequent opportunities of observing this.

In the spring of the year the sea-wind (by a piercing cold) is always more uneasy to me, accustomed to winds which pass over a tract of land, than the north-west wind.

You have received a common notion of water-spouts, which, from my own ocular observation, I am persuaded is a false conception. In a voyage to the West Indies, I had an opportunity of observing water-spouts. One of them passed nearer thirty or forty yards to the ship than I was in.

which I [redacted] with a good [redacted] of attention; and though [redacted] be now forty years since I saw it, it made so strong an impression on me, that I very distinctly remember it. These water-spouts were in the calm latitudes, that is, between the trade and the variable winds, in the month of July. The spout which passed so near [redacted] was an inverted cone, with the tip or apex towards the sea, [redacted] reached within about eight feet of the surface of the sea, its basis in a large black cloud. [redacted] were entirely becalmed. [redacted] passed slowly by the vessel. I could plainly observe, that a violent stream of wind issued from the spout, which made a hollow of about six feet diameter in the surface of the water, and raised the water in a circular [redacted] ring round the hollow, in the same manner that a strong blast from a pair of bellows would do when the pipe is placed perpendicular to the [redacted] of [redacted] water; and we plainly heard the same hissing noise which such a blast of wind must produce on the water. I am very sure there was nothing like the sucking of water from the sea into the spout, [redacted] spray, which was raised in a ring to a small height, could be mistaken for a raising of water. I could plainly distinguish a distance of about eight feet between the sea and the tip of the cone, in which [redacted] interrupted the sight, which must have been, had [redacted] been raised from the sea.

In the [redacted] voyage I [redacted] several other spouts at a greater distance, but none of them whose tip of the cone came so near the surface of the water. In some of them the axis of the cone was considerably inclined from the perpendicular, but in none of them was there the least appearance of sucking up of water. Others of them [redacted] bent or arched. I believe that a stream of wind issued from all of them, and it is from this stream of wind that vessels [redacted] often overset, [redacted] founder at sea suddenly. I have [redacted] of vessels being over- [redacted] when it [redacted] perfectly calm, the instant before the stream of wind struck them, [redacted] immediately after they were overset; which could [redacted] otherwise be but by such a [redacted] of wind [redacted] a cloud.

[redacted] wind is generated in clouds will [redacted] admit of a dispute. Now if such wind be generated within [redacted] body of the cloud, and issue in one particular place, while it [redacted] no passage in the other parts of the cloud, I think it may not be difficult to [redacted] for all the appearances in water-spouts: and from hence the reason of breaking those spouts, by firing a cannon-ball through them, as thereby a horizontal vent is given to the wind. [redacted] the wind is spent, which dilated the cloud, or the fermentation ceases, which generates the air and wind, [redacted] clouds may descend in a prodigious fall of water or rain. A remarkable intestine motion, like a violent fermenta-

tion, is very observable in the cloud from whence the spout issues. No salt-water, I am persuaded, was ever observed to fall from the clouds, which must certainly [redacted] happened if sea-water had been raised by a spout.

Answer to the foregoing Observations, by B. Franklin.—Read at the Royal Society, Nov. 4, 1756.

I ASSENT with you, that it seems absurd to suppose that a body can act where it is not. I have no idea of bodies [redacted] a distance attracting or repelling one another without the assistance of some medium, though I know not what that medium is, or how it operates. When I speak of attraction or repulsion, I make use of those words for want of others more proper, and intend only to express effects which I see, and not causes of which I am ignorant. When I press a blown bladder between my knees, and find I cannot bring its sides together, but my knees feel a springy matter, pushing them back to a greater distance, or repelling them, I conclude that the air it contains is the cause. And when I operate on the air, and find I cannot by pressure force its particles into contact, but they [redacted] spring back against the pressure, I conceive there must be some [redacted] between its particles that prevents their closing, though I cannot tell what it is. And if I were [redacted] acquainted with that medium, and found its particles to approach and recede from each other, according to the pressure they suffered, I should imagine there must [redacted] some finer medium between them, by which these operations [redacted] performed.

I allow that increase of the surface of a body may occasion it to descend slower in air, water, or any other fluid: but do not conceive, therefore, that it [redacted] its weight. Where the increased surface is so disposed as that in its falling a greater quantity of the [redacted] it sinks in must [redacted] moved out of its way, a greater time is required [redacted] such removal. Four square feet of sheet lead sinking in [redacted] broadways, [redacted] descend near so fast as it would edgeways, yet its weight [redacted] the hydrostatic balance would, I imagine, [redacted] the same, whether suspended by the [redacted] [redacted] by the corner.

I make no doubt but [redacted] ridges of high mountains do [redacted] interrupt, stop, reverberate, or turn the winds that blow against them, according to the different degrees of strength of the winds, [redacted] angles of incidence. I suppose too, that the cold upper parts of [redacted] may condense the [redacted] air that comes near them, [redacted] [redacted] by making it specifically heavier, cause it to descend [redacted] one or both [redacted] of the ridge [redacted] warmer valleys, which will seem a wind blowing [redacted] the [redacted]

Damp winds, though colder by the thermometer, give a more easy sensation of cold than dry because (to speak like an electrician) they conduct better; that is, are better convey away the from our bodies. The body cannot without itself; sensation of not in the air the body, in parts of the body which have been deprived of their heat by the air. My desk, and its lock, are, I suppose, of the temperament when they have been long exposed air; but if I lay my on the wood, it does as cold as the lock; because (as I imagine) wood is not so good a conductor, to receive and convey away the heat from my skin, and the adjacent flesh, as metal is. Take a piece of wood, of the size and shape of a dollar, between the thumb finger of one hand, and a dollar, in manner, with the other hand: place the edges of both, at the same time, in the flame of a candle: and though the edge of the wooden piece takes flame, and the metal piece does not, yet you will be obliged to drop the latter before the former, it conducting the heat suddenly to your fingers. Thus we can, without pain, handle glass and china cups filled with hot liquors, tea, &c. silver. A silver tea-pot have a wooden handle. Perhaps it is for the same reason that woollen garments keeping the body warmer than linen ones equally thick; woollen keeping the natural heat in, in other words, conducting it out air.

In regard to water-spouts, having, in a long letter a gentleman of the sentiment with you as their direction, said all that I have to say in support of my opinion; I need not repeat the arguments therein contained, as I intend to send you a copy of by some other opportunity, for your perusal. I imagine you will find all the you saw, accounted for by my hypothesis. I thank you communicating the account of them. At present I would only say, that the opinion of winds being generated in clouds by fermentation, is new me, and quaint facts which I founded. I likewise it difficult to conceive of winds confined in the body of clouds, which I imagine have solidity than the fogs on this earth's surface. The objection from the freshness of rain-water is a strong one, but I think I have answered in the letter above, to which I must beg leave, present, you.

Extracts from Dampier's Voyage.—Read Royal Society, December 16, 1771.

A spout is a small ragged piece, or part of a cloud, hanging down about a yard seemingly, from the blackest part thereof. Commonly it hangs sloping thence, or

times appearing with bending, or elbow, in the middle. I saw any hang perpendicularly down. lower end, seeming no bigger one's but still fuller towards the cloud whence it proceeds.

When the surface of the sea begins work, you about paces circumference and move gently round, the whirling increases; it rises upwards in a pillar, about one hundred paces compass at bottom, but gradually lessening upwards, to the smallness of a spout itself, through which the rising sea-water seems to be veiled into the clouds. visibly appears by the clouds increasing in bulk and blackness. Then you shall presently see the cloud drive along, though before it seemed to be without any motion. The spout also keeping the same course with cloud, and still sucking the water as it goes along, and they make a wind as they go. Thus continues for half an hour, more or less, until the sucking is spent, then breaking off, all the water which below the spout, or pendulous piece of cloud, falls down again into the sea, making a great noise with it, and a clashing motion in the

It is very dangerous for a ship to be under a spout when it breaks; therefore we always endeavour to shun it, by keeping a distance, if possibly we can. But for want of wind to carry away, we are often in great fear and danger, for it is usually calm when spouts are at work, except only just where they are. Therefore at sea, when they see a spout coming, and know not how to avoid it, do sometimes fire shot out of their great guns into it, give it air vent, that it may break; but I never hear that it proved to be of any benefit.

And now we are on this subject, I think it not amiss to give you an account of an accident that happened a ship the of Guinea, time as about the year 1674. One capt. Records of London, bound for the of Guinea, in a ship of three hundred tons, sixteen called Blessing, when he into latitude seven or eight degrees north, he saw several spouts, one of which directly towards the ship, and he having wind to get out of the way of the spout, made ready to receive by furling the. It on very swift, a little it reached the ship, making a great noise, and raising the sea round it, as if a great house, or some such thing, had been into the sea. The fury of the wind lasted, took ship starboard-bow with such violence, that it snapped off the bolthead and foremast once, and blew the ship all along, ready to overset it; but ship presently right

again, and the wind whirling round, took the whip a second time with the like fury as before, but on the contrary side, was again like to overset her the other way: the mizzen the fury of this blast, and was snapt short off, as the foremast and bowsprit been before. The and main-top-mast received no damage, for the fury of the wind (which presently over) did not reach them. Three men were on the foretop when the foremast broke, and one on the bowsprit, with them the sea, but all of them were saved. I had this relation from Mr. John Canby, who was then quarter-master and steward of her; one Abraham Wise chief-mate, Leonard Jefferies second-mate.

We usually much afraid of them, yet this the only damage I heard done by them. They were terrible enough, tho rather because they come upon you while lie becalmed, like a log in the sea, and cannot get out of their way. But though I have seen and been beset by them often, yet the fright was always the greatest of the harm.—*Dampier*, vol. 1. page 451.

Account of a Spout on the coast of New Guinea—from the same.

"We had fair clear weather, and a fine moderate gale from south-east to east by north: but at day-break the clouds began to fly, and it lightened very much the east north-east. At sun rising the sky looked very red in the east the horizon; and there were many black clouds both the south and north of it. About a quarter of an hour after the sun was up, there a squall to the windward of us, when, on a sudden, of our men on the fore-castle, called out that he something water, but could not tell what. I look'd out for it, and immediately a spout beginning to work within a quarter of a mile of us, exactly in the wind; we presently put right before it. It very swiftly, whirling the water up a pillar, about or seven yards high. As yet I could any prodigious cloud from whence it might come; and I was in hopes it would soon lose force. In four or five minutes it within a cable's length of us, and passed away leeward, and then a long pale stream coming down to the whirling water. This was about the bigness of a rainbow. The upper end seemed vastly high, not descending from any dark cloud, and, therefore, the more strange to me, I having the like before. It past about a to the leeward of us, broke. was but a spout, and not strong nor lasting; yet I per-

* Probably if it had been lasting, a cloud would have been above it. These from *Dampier*, seem, in to favour both opinions.

ceived much wind as it passed by."—Vol III. page 223.

Account of a Spout—from the

"a spout but a small distance from us; it fell down out of a black cloud that yielded great store of rain, thunder, and lightning. This cloud hovered to the southward of us for the space of three hours, and then drew to the westward a great pace, at which it that the spout, which hung fast to the cloud till broke, and then the cloud whirled about the south-east, then to the north-east, where meeting an island, it spent itself. dispersed: and immediately we had a lull of the tail of it, having had none before."—Vol III. page 102.

C. Golden to Dr. Franklin.—Read the Royal Society, December 6, 1756.

April 8 1754

Any knowledge I have of the winds, and other changes which happen the atmosphere, is very defective, that does not deserve the name: neither have I received any satisfaction from the attempts of others on this subject. It deserves then your thoughts, as a subject in which you may distinguish yourself, and be useful.

Your notion of some things conducting heat or cold better than others, pleases me, I wish you pursue the point. If I remember right, Dr. Boerhaave, in his chemistry, thinks that heat is propagated by the vibration of a subtle elastic fluid, dispersed through the atmosphere and through all bodies. Sir Isaac Newton says, there are many phenomena to prove the existence of such a fluid, and this opinion has my assent to it. I shall only observe that it is essentially different from which I call ether: for ether, properly speaking, is neither a fluid nor elastic: its power consists in re-acting any action communicated to it, with the force it returns the action.

I long to see your explanation of water-spouts, but I must tell you before hand, that I will not be easy for you to convince me that the principal phenomena were not occasioned by a stream of wind issuing with great force, my eyes and both concurring to give me this sentiment, I could have no evidence than to feel the effects, which I had inclination to do.

It surprises me a little, that wind, generated by fermentation to you, since it may be every day observed fermenting liquor. You know with what force fermenting liquors will burst vessels which them, if the generated wind have not vent; with what force it issues on giving it a

and, the reflux inverted con-

small vent, or by drawing the cork of a bottle. Dr. [redacted] says, [redacted] issuing from fermenting liquors received through a very [redacted] vent-hole, into [redacted] will [redacted] as suddenly [redacted] certainly as lightning. [redacted] generated by fermentation. I think you will find fully proved in Dr. [redacted] Analysis of the Air, in his Vegetable Statics. [redacted] you have not read the book, you have a new pleasure to [redacted]

The solution you give to the objection I made [redacted] the contrary winds blowing from [redacted] opposite [redacted] of [redacted] mountains, from there being eddies, does not please me, because the extent of these winds is by far too large to be occasioned by any eddy. It is forty miles from New York [redacted] mountains, through which [redacted] River passes. The river [redacted] twelve [redacted] in the mountains, and from the north side of the mountains it is about ninety [redacted] Albany. [redacted] have myself been on board a vessel more than once, when we have had a strong [redacted] wind against us, all the way from New York, for two or three days. We have met [redacted] from Albany, who assured us, that, on the other side of the mountains, they had, at the same time, a strong continued southerly wind against them; and this frequently happens.

I have frequently seen, both on the river, in places where there could [redacted] eddy-winds and on the open sea, [redacted] vessels sailing with [redacted] winds, within half a mile of each other; but this happens only in easy winds, and generally calm in other places near [redacted] winds.

You have, no doubt, frequently observed a single cloud pass, from which a violent gust of wind issues, but of no great extent. I have observed such a gust make a lane through the woods, of some miles in length, by laying the trees [redacted] to the ground, and not above eight or ten chains in breadth. Though the violence of the wind be in the same direction in which the cloud moves and precedes it, yet wind issues from all sides of it: so that supposing the cloud [redacted] south-easterly, those on the north-east side of it [redacted] a south-west wind, and others on the south-west side, a north-east. And where the cloud passes over we frequently have a south-east wind from the hinder part of it, but none violent, except the wind [redacted] direction in which the cloud [redacted]. To show what it is which prevents the wind from issuing [redacted] equally on all [redacted] is not an easy problem to me, and I shall not attempt to solve it; but when you shall show what it is which restrains the electrical fluid [redacted] spreading itself in the air surrounding it, when it [redacted] with great violence through the air along, or in the conductor, for a great extent in length, then I may hope to explain the other problem, and remove the difficulty we have in conceiving it.

Peter [redacted]

Account of a Whirlwind in Maryland.

PHILADELPHIA Aug. 25, [redacted]

[redacted] you have my former papers [redacted] whirlwinds, &c. I [redacted] you an [redacted] of one which I [redacted] lately [redacted] opportunity of seeing and examining myself.

Being in Maryland, riding [redacted] colonel Tasker, and some other gentlemen, w [redacted] country seat, where I and [redacted] son were entertained by that [redacted] worthily with great hospitality [redacted] kindness, [redacted] in the vale below us, a [redacted] whirlwind beginning in the road, and showing itself by the dust it raised [redacted] contained. [redacted] appeared in the form of a sugar-loaf, spinning on [redacted] point, moving up the hill [redacted] towards us, and enlarging as it came forward. When it passed by us, its smaller part [redacted] the ground appeared no bigger than a [redacted] barrel, widening upwards, it seemed, at forty or fifty feet high, [redacted] be twenty [redacted] thirty [redacted] diameter. The [redacted] of the company stood looking after it, [redacted] my curiosity being stronger, I followed it, riding close by its side, and observed its licking up, in its progress, all the dust that was under its smaller part. As it is a common opinion that a shot, fired through a water-spout, will break it, I tried to break this little whirlwind, by striking my whip frequently through it, but without any effect. Soon after, it quit the road and took into the woods, growing every moment larger and stronger, raising, [redacted] of dust, the old dry leaves with which the ground [redacted] thick covered, and making a great noise with them and the branches of the trees, beading some tall trees round in a circle swiftly and very surprisingly, though the progressive motion of the whirl was not so swift but that a man on foot might have kept pace with it, but the circular motion [redacted] amazingly rapid. By the leaves it [redacted] with, I could plainly perceive that [redacted] current of air they [redacted] driven by moved upwards in a spiral line; and when I saw the passing whirl continue entire, after leaving the [redacted] [redacted] bodies of large trees which it had enveloped. I no longer wondered that my whip had no effect on it in its smaller [redacted]. I accompanied [redacted] about three quarters of a mile, till some limbs of dead trees, broken off by the whirl, flying about, and falling [redacted] me, made [redacted] more apprehensive of danger: and then I stopped, looking [redacted] the top of it as [redacted] went on, which [redacted] visible, by means of the leaves contained in it, for a very great height above the [redacted]. Many of the leaves, as they got loose from the upper and widest part, were scattered in the wind; but so great was their height in the air, that they appeared no bigger than flies. My [redacted] who [redacted] by this time, came up with me, followed the whirlwind till it left the woods, and crossed an old tobacco-field, where,

finding neither dust ■ leaves ■ take up, it gradually ■ invisible below, as it went ■ y ■ field. The ■ of the general wind then blowing ■ along with us as ■ travelled, and the progressive motion of the whirlwind ■ in a direction nearly opposite, though it ■ keep a straight line, nor was its progressive motion uniform, it making little sallies on either ■ it went, proceeding sometimes faster, and sometimes slower, and seeming sometimes for a few seconds almost stationary, ■ starting forwards pretty fast again. When we rejoined the company, they ■ admiring the ■ height of the leaves now brought by the com- ■ wind, over our heads. These leaves accompanied ■ ■ travelled, ■ falling ■ and then round about ■ and ■ not reaching the ground till ■ had gone near three miles from the place where ■ first saw the whirlwind begin. Upon my asking colonel Tasker if such whirlwinds were common in Maryland, he answered pleasantly, No, ■ all common, but we got this on purpose to treat Mr. Franklin.—And a very high treat it ■ too. ■ FRANKLIN.

Alexander Smoll, London.

(In the North-east Storms in North America.
May 12, 1760.

AGREEABLE to your request, I send you my reasons for thinking that our north-east storms in North America begin first, in point of time, in the south-west parts: that is to say, the air in Georgia, the farthest of ■ colonies to the south-west, begins to move south-westerly before the air of Carolina, which is the next colony north-eastward; the air of Carolina, has the ■ motion before the air of Virginia, which ■ still ■ north east-ward; and ■ on north-easterly through Pennsylvania, New York, New England, &c. quite ■ Newfoundland.

These north-east storms are generally very violent, continue sometimes two or three days, and often do considerable damage in the harbours along the coast. They ■ attended with ■ clouds and rain.

What first gave ■ idea, ■ the following circumstance. About twenty years ago, a few more or less, I cannot from my memory be certain, ■ were to have an eclipse of the moon ■ Philadelphia, on a Friday evening, about nine o'clock. ■ intended ■ observe it, ■ was prevented by a north-east storm, which ■ on about ■ with thick clouds ■ usual, ■ quite obscured the whole hemisphere. Yet when ■ post brought us the Boston newspaper, giving an account of the effects of the same storm in those parts, I found the beginning of the eclipse ■ well ■ there, though Boston lies N.

E. of Philadelphia about four hundred miles. This puzzled me, because the storm began with us ■ soon as to prevent ■ observation, ■ being a north-east storm, I imagined, ■ have begun rather sooner in places further ■ the north-eastward than it did ■ Philadelphia. I therefore mentioned it in a letter to ■ brother, who lived at Boston; and he informed ■ the ■ did not begin with them till ■ eleven o'clock, so that they had a good observation of the eclipse; and upon comparing all the other accounts I received from the several colonies, of the time of beginning of the same storm, and since that of other storms of the ■ kind, I found the beginning to be always later the farther north-eastward. I have not my ■ with me here in England, and cannot, from memory, say the proportion of time to distance, but I ■ it is about an hour ■ every hundred miles.

From thence I formed ■ idea of the cause of these storms, which I would explain by ■ familiar instance or two.—Suppose a long canal of water stopped ■ the end by a gate. The water is quite at rest till the gate is open, then it begins to move out through the gate; the water next the gate is first in motion, and ■ towards the gate; the water next to that first water moves next, and so on ■ cessively, till the water ■ the head of the canal is in motion, which ■ last of all. ■ thus ■ all the water ■ indeed towards the gate, but the successive times of beginning ■ are the contrary way, viz. from the gate backwards ■ the head of the canal. Again, suppose the air in a chamber at rest, no current through the ■ till y ■ make ■ fire in the chimney. Immediately the air in the chimney being rarefied by the ■ rises; the air next the chimney flows in to supply its place, moving towards the chimney; and, in consequence, the rest of the ■ sively, quite back to the door. Thus to produce ■ north-east storms, I suppose ■ great heat and rarefaction of the air ■ ■ about the gulph of Mexico: the air thence rising has its place supplied by the next more northern, cooler, and therefore denser and heavier air; that, being in motion, is followed by the next more northern air, &c. ■ ■ cessive current, to which current our ■ and inland ridge of mountains give the direction of north-east ■ they lie N. E. ■ W. ■ offer only as an hypothesis to account for this particular fact; and perhaps, on farther examination, a better and truer may ■ I do not suppose ■ storms generated in the same manner. Our north-west thunder gusts in America, I know are not; but of them I have written my opinion fully in a ■ which you have seen.

R. FRANKLIN.

To Dr. Percival, Manchester.

*Meteorological Imaginations and Conjectures.**

There seems to be a region higher, in the air over all countries, where it is always winter, where frost exists continually, since in the midst of summer, on the surface of the earth, ice falls often from above in the form of hail.

Hailstones, of the great weight we sometimes find them, did not probably acquire their magnitude before they began to descend. The air being eight hundred times rarer than water, is unable to support it but in the shape of vapour, a state in which its particles are separated. As soon as they are condensed by the cold of the upper region, so as to form a drop, that drop begins to fall. If it freezes into a grain of ice, that ice descends. In descending, both the drop of water and the grain of ice are augmented by particles of the vapour they pass through in falling, and which they condense by, and attach to them-

It is possible that, in summer, much of what is rain, when it arrives at the surface of the earth, might have been snow when it began its descent; but being thawed, in passing through the warm air near the surface, it is changed from snow into rain.

How immensely cold must be the original particle of hail, which forms the centre of the future hailstone, since it is capable of communicating sufficient cold, if I may so speak, to freeze all the mass of vapour condensed round it, and form a lump of perhaps six or eight ounces in weight!

When, in summer time, the sun is high, and continues long every day above the horizon, his rays strike the earth more directly and with longer continuance, than in the winter; hence the surface is more heated, and to a greater depth, by the effect of those rays.

When rain falls on the heated earth, and soaks down into it, it carries down with it a great part of the heat, which by that means descends still deeper.

The mass of earth, to the depth of perhaps thirty feet, being thus heated to a certain degree, continues to retain its heat for some time. Thus the first snows that fall in the beginning of winter, seldom lie long on the surface, but are soon melted, and soon absorbed. Which, the winds blow over the country on which the snows had fallen, are not rendered so cold as they would have been, by those snows, if they had remained, and thus the approach of the severity of winter is retarded; and the extreme degree of its cold is not always the time we might expect it, viz. when the sun is at its greatest

distance, the day shortest, but some time after that period, according to the English proverb, which "as the day lengthens, the strengthens;" the causes of refrigeration operate, while the sun returns too slowly, and his force continues too weak to counteract them.

During several of the summer months of the year 1783, when the effects of the sun's rays to heat the earth in these northern regions should have been the greatest, there existed a constant fog over all Europe, and great part of North America. This fog was of a permanent nature: it was dry, and the rays of the sun seemed to have little effect towards dissipating it, as they easily do a moist fog, arising from water. They were indeed rendered so faint in passing through it, that when collected in the focus of a burning glass, they would scarce kindle brown paper. Of course, their summer effect in heating the earth was exceedingly diminished.

Hence the surface was early frozen.

Hence the first snow remained on it unmelted, and received continual additions.

Hence perhaps the winter of 1783-4, was more severe than any that had happened for many years.

The cause of this universal fog is not yet ascertained. Whether it is adventitious to the earth, and merely a smoke proceeding from the consumption by fire of some of those great burning balls or globes which we happen to meet with in our rapid course round the sun, and which sometimes seem to kindle and be destroyed in passing our atmosphere, and whose smoke might be attracted and retained by our earth; or whether it is the vast quantity of smoke, long continuing to issue during the eruptions from Hecla, in Iceland, and that other volcano which arose out of the sea near that island, which smoke might be spread by various winds over the northern part of the world, is yet uncertain.

It seems however worth the inquiry, whether other hard winters, recorded in history, preceded by similar permanent and widely extended summer fogs. Because, if found to be so, men might from such fogs conjecture the probability of a succeeding hard winter, and of the damage to be expected by the breaking up of frozen rivers in the spring; and take such measures as are possible, practicable, to secure themselves and effects from the mischiefs that attended the last.

Passy, May, 1784.

To Dr. Lining, at Charleston.

On Cold produced by Evaporation.

New York, April 14, 1787.

It is a long time since I had the pleasure of a line from you; and, indeed, the troubles

* This paper was inserted in the *Memoirs of the Literary and Philosophical Society of Manchester*, Vol. II. page 378. It was communicated by Dr. Percival, and read Dec. 13, 1784.

of our country, with the hurry of business I have been engaged in on that account, have made me so bad a correspondent, that I ought not to expect punctuality in others.

But being about to return for England, I could quit the continent without paying my respects to you, and, at the same time, taking leave, I introduce to your acquaintance a gentleman of learning and merit, colonel Henry Bouquet, who does me the favour to present you this letter, and with whom I am sure you will be much pleased.

Professor Simpson, of Glasgow, lately communicated to me some curious experiments of a physician of his acquaintance, by which it appeared, that an extraordinary degree of cold, even to freezing, might be produced by evaporation. I have had leisure to repeat and examine more than the first and easiest of them, viz. Wet the bulb of a thermometer by a feather dipped in spirit of wine, which has been kept in the same room, and has of course the same degree of heat as cold. The mercury sinks presently three or four degrees, and the quicker, if during the evaporation you blow on the bulb with bellows: a second wetting and blowing, when the mercury is down, carries it yet lower. I think I did not get it lower than five or six degrees from where it naturally stood, which was at that time sixty. But it is said, that a vessel of water being placed in another somewhat larger, containing spirit, in such a manner that the vessel of water is surrounded with the spirit, and both placed under the receiver of an air pump; on exhausting the air, the spirit, evaporating, leaves such a degree of cold as to freeze the water, though the thermometer, in the open air, stands many degrees above the freezing point.

I know not how this phenomena is to be accounted for, but it gives me occasion to mention some loose notions relating to heat and cold, which I have for some time entertained, but yet reduced into any form. Allowing common fire, as well as electrical, to be a fluid capable of permeating other bodies, and seeking an equilibrium, I imagine some bodies are better fitted by nature to be conductors of that than others; and, that, generally, those which are the best conductors of electric fluid, are also the best conductors of this; as I observe.

Thus a body which is a good conductor of fire readily receives it into its substance, and conducts it through its whole; all the parts, metals and wood do; and of two bodies, both good conductors, the heated, the other in its natural state, brought into contact with the other, the body which has most fire readily communicates of it to that which had least, and which is the better conductor receives it, till an equilibrium is produced. Thus, if you put a dollar between your fin-

gers with one hand, and a piece of wood, of the same dimensions, with the other, and bring both at the same time to the flame of a candle, you will find yourself obliged to drop the dollar before you drop the wood, because it conducts the heat of the candle so much more to your flesh. Thus, if a silver tea-pot had a handle of the same metal, it would conduct heat from the water to the hand, and become too hot to be used; we therefore give to a metal tea-pot a handle of wood, which is so good a conductor of heat. A china or stone tea-pot being in some degree of the same of glass, which is a good conductor of heat, may have a handle of the same stuff. Thus, also, a damp moist air shall make a man more sensible of cold, than a dry air that is colder, because a moist air is fitter to receive and conduct away the heat of his body. This fluid, entering bodies in great quantity, first expands them, by separating their parts a little, afterwards, by further separating their parts, it renders solids fluid, and its length dissipates their parts in all directions. Take this fluid from melted lead, or from butter, the parts cohere again, the first grows solid, the latter becomes ice; and this is sooner done by the means of good conductors. Thus, if you take a square bar of lead, four inches long, and one inch thick, together with three pieces of wood planed to the same dimensions, lay them on a smooth board, fix so as not to be easily separated or moved, and pour into the cavity they form, as much melted lead as will fill it, you will see the melted lead chill, and become firm, on the side nearest the leaden bar, some time before it chills the other three sides in contact with the wooden bars, though before the lead was poured in, they might all be supposed to have the same degree of heat or coldness, as they have been exposed in the same room to the same air. You will likewise observe, that the leaden bar, as it cools the melted lead, more than the wooden bars have done, so it is more by the melted lead. There is a certain quantity of this fluid called fire, in every living human body, which fluid, being in due proportion, keeps the parts of the flesh and blood at such a just distance from each other, as the flesh and nerves are supple, and fit for circulation. If part of this due proportion of fire be conducted away, by means of a contact with other bodies, as air, water, metals, the parts of our skin and flesh that come into such contact first, draw more near together than is agreeable, give that sensation which we call cold; and if too much be conveyed away, the body stiffens, the blood ceases to flow, and death ensues. On the other hand, if too much of this fluid be communicated to the flesh, the parts are separated too far, and pain ensues, as they

separated by a pin or lancet. The sensation the separation by fire occasions, we burning. My which I now write, and the lock of my desk, are both exposed the temperature of the air, have therefore the degree of heat or cold: yet if I lay my hand successively on the wood and on the metal, the latter feels much colder, that it really is being a better conductor, readily than the wood takes and draws into itself the that in my skin. Accordingly if I lay one hand, part on the lock, and part on the wood, and after it had laid on some time, I feel both parts with my other hand, I part that has been in contact with the lock, very sensibly colder to the touch than the part that lay on the wood. How a living animal obtains quantity of this fluid called fire, is a curious question. I have shown, that bodies (as metals) have a power of attracting it stronger than others; and I have sometimes suspected, that a living body some power of attracting out of the air, other bodies, the heat it wanted. Thus metals hammered, repeatedly bent, grow hot in the heat or hammered part. But when I consider that air, in contact with the body, cools it: that the surrounding air is rather heated by its contact with the body; that every breath of cooler air drawn in, carries off part of the body's heat when it passes out again; that therefore there must be in the body a fund for producing it, otherwise the animal would soon grow cold: I have been rather inclined to think, that the fluid fire, as well as the fluid air, is attracted by plants in their growth, and becomes consolidated with the other materials of which they are formed, and makes a great part of their substance: that when they come to be digested, and suffer in the vessels a kind of fermentation, part of the fire, as well as part of the air, recovers active again, and diffuses itself in the body digesting separating it: that the fire so reproduced, by digestion and separation continually leaving the body, its place is supplied by fresh quantities, arising from the continual separation. That whatever quickens the motion of the fluids in an animal quickens the separation, and reproduces more of the fire; as exercise. the fire by wood, and other combustibles, when burning existed in them before, in state, being only discovered when parating. That fossils, sulphur, coal, &c. contain a great deal of solid fire; that, in short, what escapes and is dissipated in the burning of bodies, besides water earth, is generally the air and fire that made parts of the animal. Thus I imagine animal heat arises by or from a kind of fermentation in the juices of the body, in the same manner as heat arises in the liquors

preparing for distillation, wherein there is a separation of the spirituous, from the watery and earthy parts. is remarkable, liquor in a distiller's vat, when in its highest and best state of fermentation, I have been informed, has the same degree of heat with the human body: that is, about or 96.

Thus, as by a constant supply of fuel in a chimney, you keep a room, so, by a constant supply of in stomach, you keep a body; only where little exercise is used, the may possibly conducted away too fast; in which such materials are he used for clothing bedding, against the effects of an immediate of the air, are, themselves, conductors of heat, and consequently, prevent its being communicated through their substance to the. Hence, what is called warmth wool, its preference that account, to linen: wool not being so good a conductor: hence all the natural coverings of animals, to keep them such as retain fine the natural heat in the body, by being bad conductors, such wool, hair, feathers, and the silk by which the silkworm, its tender embryo state, is first clothed. Clothing, thus considered, does not make a man by giving warmth, but by preventing the too quick dissipation of the heat produced in his body, and occasioning

There is another curious question I will just venture to touch upon, viz. Whence arises the sudden extraordinary degree of cold, perceptible on mixing some chemical liquors, and even on mixing salt and snow, where the composition appears colder than the coldest of the ingredients? I have never the chemical mixtures made, but salt and snow I have often mixed myself, and am fully satisfied that the composition feels much colder to the touch, and lowers the mercury in the thermometer than either ingredient would do separately. I suppose, with others, cold is nothing the absence of heat fire. Now if the quantity of fire before contained or diffused in the snow and expelled in uniting of the two matters, it must be driven away either through the air the vessel containing them. If it driven off through the air, the air, and a thermometer held over the mixture, without touching it, would discover heat, by the rising of the mercury, as it must, and always does in air.

This, indeed, I have tried, but I should guess it would rather be driven off through the vessel, especially if the vessel be metal, as being a better conductor air; so one should the basin after such mixture. But, the contrary, vessel grows cold. water, which the

vessel is sometimes placed for the experiment, freezes into ice on the basin. Now I know not how to account for this, otherwise than by supposing, that the composition is a better conductor of fire than the ingredients separately, and, like the lock compared to the wood, has a stronger power of attracting fire, and does accordingly attract it suddenly from the fingers, or a thermometer put into it, from the basin that contains it, and from the vessel in contact with the outside of the basin; so that the fingers have the sensation of extreme cold, by being deprived of much of their natural fire; the thermometer sinks, by having part of its fire drawn out of the mercury; the basin grows colder to the touch, as, by having its fire drawn into the mixture, it becomes more capable of drawing the receiving vessel's hand; and through the basin, the water loses its fire that kept it fluid; it becomes ice. One would expect, that from all this attracted acquisition of fire the composition, it should become warmer; and, in fact, the oil and salt dissolve at the same time into water, without freezing.

B. FRANKLIN.

To Dr. Lining, at Charleston.

On the production of Cold by Evaporation.

LONDON, June 17. 1744.

In a former letter I mentioned the experiment for cooling bodies by evaporation, and that I had, by repeatedly wetting the thermometer with common spirits, brought the mercury down five or six degrees. Being lately at Cambridge, and mentioning this in conversation with Dr. Hadley, professor of chemistry there, he proposed repeating the experiments with ether, instead of common spirits, as the ether is much quicker in evaporation. We accordingly went to his chamber, where he had both ether and a thermometer. By dipping first the ball of the thermometer into the ether, I appeared that the ether was precisely of the same temperament with the thermometer, which stood then at 65; for it made no alteration in the height of the little column of mercury. But when the thermometer was out of the ether, and the ether, with which the ball was wet, began to evaporate, the mercury sunk several degrees. The wetting was then repeated by a feather that I dipped into the ether, when the mercury sunk still lower. We continued this operation, one of us wetting the ball, and the other of the company blowing it with the bellows, to quicken the evaporation, the mercury sinking at the same time, till it came down to 7, which is 25 degrees below the freezing point, when I was. Soon after it passed the freezing point, a thin coat of ice began to cover the ball. Whether this was water col-

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lected and condensed by the coldness of the ball, from the moisture in the air, or from our breath; whether the feather, dipped into the ether, might not sometimes go through it, and bring up some of the water that was under it, I am not certain; perhaps all might contribute. The ice continued increasing till we ended the experiment, when it appeared near a quarter of an inch over the ball, with a number of small spicula, pointing outwards. From the experiment one may see the possibility of freezing a man to death on a summer's day, if he were to stand in a passage through which the wind blew briskly, and to be frequently with ether, a spirit that is more inflammable than brandy, or spirits of wine.

It is but within these few years, that the European philosophers seem to have known this power in nature, of cooling bodies by evaporation. In the East they have long been acquainted with it. A friend tells me there is a passage in Bernier's Travels through Hindostan, written near one hundred years ago, that mentions it as a practice (in travelling over dry deserts in that hot climate) to carry water in flasks wrapt in wet woollen cloths, and hung on the shady side of the camel, or carriage, but in the free air; whereby, as the cloths gradually grow drier, the water contained in the flasks is made cool. They have likewise a kind of earthen pots, unglazed, which let the water gradually and slowly pass through their pores, so as to keep the outside a little wet, notwithstanding the continual evaporation, which gives great coldness to the vessel, and the water contained in it. Even our common sailors seem to have had some notion of this property; for I remember, that being at sea when I was a youth, I observed some of the sailors, during a calm in the night, often wetting his finger in his mouth, and then holding it up in the air, to discover, as he said, if the air had any motion, and from which it came; and thus he expected to do, by finding one side of his finger grow suddenly cold, and from that side he should look for the wind; which he then laughed at as fancy.

May not several phenomena, hitherto considered, or unaccounted for, be explained by this property? During the summer at Philadelphia, in June, 1750, when the thermometer was up at 80 in the shade, I was in my chamber without exercise, only reading or writing, with no other clothes on than a shirt, and a pair of long linen drawers, the windows all open, and a brisk wind blowing through the house, sweat ran off the backs of my hands, and my shirt was often so wet, as to induce me to call for dry ones to put on, in this situation, one might have expected, that the natural heat of the body 96, added to the heat of the air 100, should jointly have

created or produced a much greater degree of heat in the body; but the fact was, that my body never grew so hot as the air that surrounded it, or the inanimate bodies immersed in the same air. For I remember well, that the desk, when I laid my arm upon it; a chair, when I sat down in it; and a dry shirt out of a drawer, when I put it on, all felt exceedingly warm to me, as if they had been warmed before a fire. I a dead body would have acquired the temperature of the air, though a living one, by continual sweating, and by the evaporation of that sweat, was kept cold. May not this be a reason why our reapers in Pennsylvania, working in the open field, in the clear hot sun-shine common in our harvest-time, themselves well able to go through labour, without being much commoded by the heat, while they continue to sweat, and while they supply matter for keeping up that sweat, by drinking frequently of a thin evaporable liquor, mixed with rum; but if stops, they drop, sometimes die suddenly, if a sweating is not again brought by drinking that liquor, or, as rather choose in that case, a kind of hot punch, made with water, mixed with honey, and a considerable proportion of vinegar? May there not be in negroes a quicker evaporation of the perspirable from their and lungs, which, by cooling them more, enables them to bear the sun's heat better than whites do! (if that is a fact, as it is said to be; for the alleged necessity of having negroes rather than whites, to work in the West-India fields, is founded upon it) though the colour of their skins would otherwise make them more sensible of the sun's heat, since black cloth heats much sooner, and in the sun, than white cloth. I am persuaded, from several instances happening within my knowledge, that they do not bear cold weather so well as the whites; they will perish when exposed a less degree of it, and are more apt to have their limbs frost-bitten; may not this from the same cause? Would not the earth grow much hotter under the summer-sun, if a constant evaporation from its surface, greater as the sun shines stronger, did not, by tending to cool it, balance, in some degree, the warmer effects of the sun's rays? Is it not owing to the constant evaporation from the surface of every leaf, that trees, though shone on by the sun, are always, even the leaves themselves, cool to our sense? at least much cooler than they would otherwise be! May not be owing to this, that fanning ourselves when warm, does really cool us, though the air is warm that we drive with the fan upon our faces; for the atmosphere round, and next to our bodies, having imbibed as much of the perspired vapour as it can well contain, receives no more, and the evaporation is there-

fore checked and retarded, till we drive away that atmosphere, and bring drier air in its place, that will receive vapour, thereby facilitate increase evaporation? Certain it is, that mere blowing of air on a dry body does not cool it, as any one may satisfy himself, by blowing with a on the dry of a thermometer; the mercury will not fall; if it moves at all, it rather rises, as being warmed by the friction of air on its surface! To queries of imagination, I only add one practical observation; wherever it is thought proper to give ease, in of painful inflammation in (as from burnings, or like) by cooling the part; linen cloths, wet with spirit, and applied to the part inflamed, will produce the coolness required, better if wet with water, and will continue it longer. For water, though when first applied, will soon acquire warmth from the flesh, it does not evaporate enough; but the cloths with spirit, will continue cold as long as any spirit keep up the evaporation, the parts warmed escaping as soon as they are warmed, and carrying off the with them.

B. FRANKLIN.

J. Bowdoin, in Boston, to Dr. Franklin.

Concerning the Light in Sea-Water—Read at the Royal Society, December 6. 1756.

November 12. 1753

—WHEN I was the eastward, I had an opportunity of observing the appearance of the when disturbed: at the head and stern of the vessel, when under way, it appeared very bright. The best opportunity I had to observe it was a boat, in company with several gentlemen going from Portsmouth, about three miles, to a vessel lying the mouth of Piscataqua river. Soon after we set off (it being in the evening) we observed a luminous appearance, where the dashed the water. Sometimes it was very bright, and afterwards, as we rowed along, gradually lessened, till almost imperceptible, and then reilluminated. This took notice of several times in the passage. When I got on board the vessel, a pail to be dipped up, full of sea-water, in which, on the water's being moved a sparkling light appeared. I took a linen cloth, and strained some of the water through it, and there was a like appearance on the cloth, which soon off; but on rubbing the cloth with my finger, it renewed. I then carried cloth to the light, but could not perceive any thing upon it which should cause that appearance.

Several gentlemen were of opinion, that the separated particles of putrid, animal, and other bodies, floating on the surface of the sea, might that appearance; for putrid fish, &c. they said, will cause it: and the sea-animals

which died, and other bodies putrified therein since creation, might afford a sufficient quantity of these particles to cover a portion of the surface of the sea; particles being differently dispersed, might account for the different degrees of light above-mentioned. This seems liable to this obvious objection, that as putrid fish, &c. make a luminous appearance without being moved or disturbed, it might be expected that the supposed putrid particles on the surface of the sea, should always appear luminous, where there is not a greater light; and, consequently, that the whole surface of the sea covered with these particles, should always, in dark nights, appear without being disturbed. This is not the fact.

Among the rest, I threw out my conjecture, that the appearance might be caused by a great number of little animals, floating on the surface of the sea, which, on being disturbed, might, by expanding their fins, or otherwise moving themselves, expose such a part of their bodies as exhibits a luminous appearance, somewhat in the manner of a glow-worm, or fire-fly: that these animals may be more numerous in some places than others; and, therefore, that the appearance above-mentioned being fainter and stronger in different places, might be owing to that: that certain circumstances of weather, &c. might invite them to the surface, on which, in a calm, they might sport themselves and glow; or in storms, being forced up, make the same appearance.

There is some difficulty in conceiving that the sea may be stocked with animalcula for such purposes, as we find all crowded with life. But it seems difficult to conceive that such small portions of matter, even if they were wholly luminous, should affect our sight; much more when it is supposed that only a part of them is luminous. But, if we consider some other appearances, we may find some difficulty to conceive of them; and yet we know they take place. For instance, the flame of a candle, which, it is said, may be seen 1000 miles round. The light which fills a circle of eight miles diameter, was contained, when it first left the candle, within a circle of half an inch diameter. If the density of light, in these circumstances, in those circles each other, is, as the squares of their diameters, the candle-light, when come to the eye, will be 1,027,709,337,600 times rarer than when it quitted the half inch circle. Now the aperture of the eye, through which the light passes, exceeds one sixteenth of an inch diameter, and the portion of the lesser circle, which corresponds to this small portion of the greater circle, must be proportionably, that is, 1,027,709,337,600 times less than one

of an inch; and yet this infinitely small point (if you will allow the expression) affords light enough to make it visible four miles; or, at least, affords light sufficient to be seen at that distance.

The smallness of the animalcula is no objection then to this conjecture; for supposing them to be ten thousand times less than the minimum visible, they may, notwithstanding, emit light enough to affect the eyes, and so to cause the luminous appearance. This conjecture I send you for want of something better.

Peter Franklin, Newport, N. Island.

On the Saltness of Sea-Water.

London, May 7, 1784.

It has, indeed, as you observe, been the opinion of some great naturalists, that the sea is salt only from the dissolution of mineral or rock-salt, which happens to meet with. But this opinion takes it for granted that all water was originally fresh, of which we can have no proof. I own I am inclined to a different opinion, and rather think all the water in this globe was originally salt, and that the fresh water we find in springs and rivers, is the produce of distillation. The sun raises the vapours from the sea, which form clouds, and fall in rain upon the land, and springs and rivers are formed of that rain. As to the rock-salt found in mines, I conceive that, instead of communicating saltiness to the sea, it is itself drawn from the sea, and that of course the sea is now fresher than it was originally. This is only another effect of nature's distillery, and may be performed various ways.

It is evident from the quantities of sea-shells, and the bones and teeth of fishes found in high lands, that the sea has formerly covered them. Then, either the land has been higher than it now is, and has fallen away from those high lands, or they have been lower than they are, and been lifted up out of the sea to their present height, by internal mighty force, such as we still feel some remains of, when whole continents are moved by earthquakes. In either case, it is supposed that large hollows, or valleys among hills, might be left filled with sea-water, which evaporating, and the land part drying away in a course of years, would leave the salt covering the bottom; and that the coming afterwards to be covered with earth, from the neighbouring hills, could only be found by digging through that earth. Or, as we know from their effects, that there are deep fiery catenas under the earth, and even under the sea, if at any time the sea were to pass off through some volcano, while the salt remains, and by

degrees, and continual accretion, becomes a great mass. Thus the cavern may at length be filled, and the volcano connected with it cease burning, as many it is said have done; and future miners, penetrating such find call salt-mine. I am fancy I on visiting salt-mines Northwich, with my son. I send you a piece of the which brought up with him out of the mine. B. LIN.

Miss Stephenson.

On the Waters, and the Tide in Rivers.

London, Sept. 13, 1760.

I HAVE your agreeable letter from Bristol, which I take this first leisure hour to answer, having for some time been much engaged in

Your first question, *What is the reason the water at this place, though cold at the spring, becomes warm by pumping?* I will be most prudent in me to forbear attempting to answer, till, by a circumstantial account, you assure me of the fact. I own I should expect that operation to warm, not so much the water pumped, as the person pumping.—The rubbing of dry solids together has been long observed to produce heat; but the like effect has never yet, that I have heard, been produced by the mere agitation of fluids, or friction of fluids with solids. Water in a bottle shook for hours by a mill-hopper, it is said, discovered no sensible addition of heat. The production of animal heat by exercise is therefore to be accounted for in another manner, which I may hereafter endeavour to make you acquainted with.

This prudence of not attempting to give reasons before one is sure of facts, I learnt from one of your sex, who, as Selden tells us, being in company with some gentlemen that viewing, considering something which they called a Chinese shoe, and disputing earnestly about the manner of wearing it, and how it could possibly be put on; put in her word, and said modestly, *Gentlemen, are you sure it is a shoe?—Should not that be settled first?*

But I shall now endeavour to explain what I said to you about the tide in rivers, and to that end shall make a figure, which though not very like a river, may serve to convey my meaning.—Suppose a canal one hundred and forty miles long, communicating at one end with the sea, and therefore with sea-water. I choose a canal at first, rather than a river, to throw out of consideration the effects produced by the streams of fresh water from the land, the inequality in breadth, and the crookedness of courses.



Let A, C, be the head of the canal; C, D, the bottom of it; D, F, the open mouth of it next the sea. Let the strait prick'd line, B, G, represent low water mark the whole length of the canal, A, F, high water mark. Now if a person standing at E, and observing at the time of high water there, that the canal is quite full that place up to the line E, should conclude that the canal is equally full to the same height from end to end, therefore there was as much more water come into the canal since it was down at low water mark, as would be included in the oblong space A, B, G, F, he would be greatly mistaken. For the tide is a wave, and the top of the wave, which makes high water, as well as every other lower part, is progressive; and it is high successively, but not at the same time, in all the several points between G, F, and A, B.—And in such a length as I have mentioned it is low water F, G, and also at A, B, at or near the same time with its being high E; so that the surface of the water in the canal, during that situation, is properly represented by the curve prick'd line, B, E, G. And on the other hand, when it is low water E, H, it is high water both at F, G, and at A, B, at or near the same time: and the surface would then be described by the inverted curve line, A, H, F.

In this view of the case, you will easily see, that there is very much more water in the canal what we call high water, than there is at low water, those terms not relating to the whole canal at the same time, but successively to its parts. And if you suppose the canal six times as long, the case would not vary as to the quantity of water at different times of the tide; the canal only be six waves in the canal at the same time, instead of one, and the hollows in the water would be equal to the hills.

That this is not mere theory, but conformable to fact, we know by our long rivers in America. The Delaware, on which Philadelphia stands, is in this particular similar to the canal I have supposed of one wave: for when it is high water at the Capes or mouth of the river, it is also high water at Philadelphia, which stands about one hundred and forty miles from the sea; and there is at the same time a low water in the middle between the two high waters; where, when it comes to be high water, it is at the same time low

water at the Cape and at Philadelphia. And the longer rivers have some a wave and half, some two, three, or four waves, according to their length. The shorter rivers of this island, one may see more thing in part; for instance, it is high water at Gravesend an hour before it is high water at London Bridge; twenty miles below Gravesend an hour it is high at Gravesend. Therefore at the time of high water at Gravesend the top of the wave is there, and the water is then not so high by some feet where the top of the wave was an hour before, or where it will be an hour after, as it is just then at Gravesend.

Now we are not to suppose, that because the swell at the top of the wave runs at the rate of twenty miles an hour, therefore the current, or itself of which the wave is composed, runs at that rate. Far from it. To conceive this motion of a wave, make a small experiment or two. Fasten one end of a cord in a window at the top of a house, let the other end come down to the ground; take this end in your hand, and you may, by a sudden motion, occasion a wave in the cord that will run quite up to the window; but though the wave is progressive from your hand to the window, the parts of the rope do not proceed with the wave, but where they were, except only that kind of motion that produces the wave. So if you throw a stone into a pond of water when the surface is still and smooth, you will see a circular wave proceed from the stone at its centre, quite to the sides of the pond; but the water does not proceed with the wave, it only rises and falls to form it in the different parts of its course; and the waves follow the first, all make use of the water with their predecessors.

But a wave in water is not indeed in circumstances exactly like that in a cord; for water being a fluid, and gravitating to the earth, it naturally runs from a higher place to a lower; therefore the parts of the wave in water do actually run a little both ways; from the top towards its lower sides, which the parts of the cord cannot do. Thus, when it is high standing at Gravesend, the water twenty miles below has been running ebb, or towards the sea for an hour, or ever since it was high water there; the water at London Bridge will run flood, from the yet another hour, till it is high water, or the top of the wave arrives at the bridge, and then it will have run ebb an hour at Gravesend, &c. Now this motion of water, occasioned by its gravity, or tendency to run from a higher place to a lower, by no means exceeds the motion of the wave. It exceeds perhaps two miles in an hour.

If it went, as it does, twenty

an hour, no ships could ride at anchor in such a stream, nor boats row against it.

In common speech, indeed, the top of the wave is the tide; we say, the tide runs strong, the tide runs at the rate of one, two, or three miles an hour, &c. and when we are at a part of the river beyond the top of the wave, and find the water lower than high-water mark, and running towards the sea, we say, the tide runs ebb; and we are before the top of the wave, and find the water higher than low-water mark, running from the sea, we say, the tide runs flood; these expressions are only locally proper; for a tide strictly speaking, is the whole wave, including all its parts higher and lower, these succeed another about twice in twenty-four hours.

This motion of the water, occasioned by its gravity, will explain you why the water near the mouths of rivers may be salted with high water then at low. Some of the salt water, as the tide wave enters the river, runs from its top and fore side, and mixes with the fresh, and also pushes it back up the river.

Supposing that the water commonly runs during the flood at the rate of two miles in an hour, and that the flood runs five hours, you see that it brings at into our canal only a quantity of water equal to the space included in the breadth of the canal, ten miles of its length, and the depth between low and high water mark; which is but a fourteenth part of what would be necessary to fill all the space between low and high water mark for one hundred and forty miles, the whole length of the canal.

And indeed such a quantity of water as would fill that whole space, run in and out every tide, create so outrageous a current, as would do infinite damage to the shores, shipping, &c. and make the navigation of a river almost impracticable.

I have made this letter longer than I intended, and therefore for another what I have further to say on the subject of tides and rivers. I shall only add, that I have not been exact in the numbers, because I would avoid perplexing you with minute calculations, my design present being chiefly to give you distinct and clear ideas of the first principles.

After writing six folio pages of philosophy to a young girl, is it necessary to finish such a letter with a compliment?—Is not such a letter of itself a compliment?—Does it not say, I have a mind thirsty after knowledge, capable of receiving it; and that the agreeable things one can write to her are those that tend to the improvement of her understanding?—It does indeed say this, but then it is still no compliment; it is no more than plain honest truth, which is not the cha-

racter of a compliment. So if I would finish my letter in the mode, I should yet add something that means nothing, and is merely civil and polite. But being naturally awkward at every circumstance of ceremony, I shall not attempt it. I had rather conclude abruptly with what pleases me more than any compliment can please you, that I am allowed to myself.

R. FRANKLIN.

To the same.

On the Subject.

CLAYTON STREET, Monday, March 30, 1763.

the fact, that the water of the well at Bristol after pupping, I think your manner of accounting for that increased warmth very ingenious and probable. It did not occur to me, and therefore I doubted of the fact.

You are, I think, quite right in your opinion, that the rising of the tides in rivers is not owing to the immediate influence of the moon on the rivers. It is rather a subsequent effect of the influence of the moon on the sea, and does not make its appearance in some rivers till the moon has long passed by. I have not expressed myself clearly if you have understood me to mean otherwise. You know I have mentioned it as a fact, that there are in some rivers several tides all existing at the same time; that is, two, three, or more, high-waters, and as many low-waters, in different parts of the same river, which possibly be all effects of the moon's immediate action on the river; but they may be subsequent effects of her action on the sea.

I enclosed paper you will find my sentiments on several points relating to the air, and the evaporation of water. It is Mr. Collinson's copy, who took it from one I sent through his hands to a correspondent in France some years since; I have, as he desired me, corrected the mistakes he made in transcribing, and most return it to him; but if you think while, you may take a copy of it: I would have saved you any trouble of that kind, but had not time.

Some day in the next or the following week, I purpose to have the pleasure of seeing you at Wanstead; I accompany your good mamma thither, and stay till the next morning, if it may be done without incommoding your family too much.—We may then discourse on any points in that paper that do not seem clear to you; and taking a walk to Tilney's ponds, make a few experiments there to explain the nature of the tides more fully. I mean time believe me to be, with highest esteem and regard, your sincerely affectionate friend,

R. FRANKLIN.

To the same.

Salt-water rendered fresh by Distillation.—
Method of relieving Thirst by Sea-Water.

CLAYTON STREET, August 10.

We are to set out this week for Holland, where we may possibly spend a month, but purpose to be at home again before the coronation. I could not go without taking leave of you by a line at least, when I am so many letters in your debt.

In yours of May 18, which I me, you speak of the ease with which salt water may be made fresh by distillation, supposing it to be, as I had said, that in evaporation the air would take the water but not the salt with it. It is sea water will not be salt, but there are other disagreeable qualities that rise with the water in distillation; which indeed I besides Dr. endeavoured by some means to prevent; but as yet their methods have been brought much into.

I have a singular opinion on the subject, which I will venture to communicate to you, though I doubt you will rank it among my whims. It is certain that the skin has imbibing as well as discharging pores; the effect of a blistering plaster, &c. I have read that a man, hired by a physician to stand by way of experiment in the open air naked during a night, weighed near three pounds heavier in the morning. I have often observed myself, that however thirsty I may have been before going into the water to swim, I am never long so in the water. These imbibing pores, however, very fine, perhaps fine enough in filtering separate from water; for though I have (by swimming, when a boy) several hours in the day for several days successively in water, I never found my juices by that means, so as to make me thirsty or a salt taste in my mouth; and it is remarkable, that the flesh of sea fish, though in salt water, is not salt. Hence I imagine, that if people are, distressed by thirst, when their fresh water is unfortunately spent, would make bathing-tubs of their empty water-casks, and, filling them with sea water, in them an hour or two each day, they might be greatly relieved. Perhaps keeping their clothes constantly wet might have an almost equal effect; and without danger of catching Men do not catch cold by wet clothes at sea. Damp, but not wet linen may possibly give colds, but no one cold by bathing, and no clothes can be wetter than water itself. Why damp clothes should then occasion colds, is a curious question, the discussion of which I reserve for a letter, or some future conversation.

Adieu my little philosopher.

respectful compliments to the good ladies your aunts, and to Miss Pitt; and believe me ever

To the same.

Tendency of rivers to the Sea—Effects of the Sun's rays on cloths of different colours.

September 20, 1761.

MY DEAR FARMER,—It is, as you observed in our late conversation, a very general opinion, that all rivers run into the sea, or deposit their waters there. 'Tis a kind of eudocia to call such general opinions in question, and may subject one to censure. But we must hazard something in what we think the cause of truth: and if we propose our objections modestly, we shall, though mistaken, deserve a less severe than when we are both mistaken and insolent.

That some rivers run into the sea is beyond a doubt: such, for instance, are the Amazon, and I think the Orinoko and the Mississippi. The proof is, that their waters are fresh quite to the sea, and out to some distance from the sea. Our question is, whether the fresh waters of those rivers whose beds are filled with salt water to a considerable distance up from the sea (as the Thames, the Delaware, and the rivers that communicate with Chesapeake bay in Virginia) do ever arrive at the sea? And as I suspect they do not, I am now to acquaint you with my reasons; or, if they are not allowed to be reasons, my conceptions at least, of

the supply of rivers is from springs, draw their origin from rain that has soaked into the earth. The union of a number of springs forms a river. The waters as they run exposed to the sun, air, and wind, are continually evaporating. Hence in crossing one may often see where a river runs, by a long bluish mist over it, though we are at such a distance as not to see the river itself. The quantity of this evaporation is greater or less, in proportion to the surface exposed by the same quantity of water to those causes of evaporation. While the river runs in a narrow confined channel in the upper hilly country, only a small surface is exposed; a greater as the river widens. Now if a river ends in a lake, as some do, whereby its waters are spread so wide as that the evaporation is equal to the sum of all its springs, that lake will never overflow;—and if instead of ending in a lake, it was drawn into greater length as a river, so as to expose a surface equal in the whole to that lake, the evaporation would be equal, and such river would end as a canal; when the ignorant might suppose, as they actually do in such cases, that the river loses itself by running under ground whereas in truth it has run up into the air.

Now, many rivers that are open to the

sea widen much before they arrive at it, not merely by the additional waters they receive, but by having their course stopped by the opposing flood-tide; by being turned back twice in twenty-four hours, and by finding broader beds in the low flat countries to dilate themselves in; hence the evaporation of the fresh water is proportionably increased; so that in some rivers it may equal the springs of supply. In such cases, salt water comes up the river, and meets the fresh in that part where if there were a wall or bank of earth across, from side to side, the river would form a lake, fuller indeed at sometimes than at others, according to the seasons, but whose evaporation would, one time with another, be equal to its supply.

When the communication between the two kinds of water is open, this supposed wall of separation may be conceived as a moveable one, which is not only pushed some miles higher up the river by every flood tide from the sea, and carried down again as far by every tide of ebb, but which even this space of vibration removed nearer to the sea in wet seasons, when the springs and brooks in the upper country are augmented by the falling rains, so as to swell the river, and farther from the sea in dry seasons.

Within a few miles above and below this moveable line of separation, the different waters mix a little, partly by their motion to and fro, and partly from the greater specific gravity of the salt water, which inclines it to run under the fresh, while the fresh water, being lighter, runs over the salt.

Cast your eye on the map of North America, and observe the bay of Chesapeake in Virginia, mentioned above; you will see, communicating with it by their mouths, the great rivers Susquehanna, Potomac, Rappahannock, York, and James, besides a number of smaller streams, each as big as the Thames. It has been proposed by philosophical writers, that to compute how much water any river discharges into the sea in a given time, we should measure its depth and swiftness at any part above the tide; as for the Thames, at Kingston or Windsor. But can one imagine, that if all the water of those vast rivers went to the sea, it would not first have pushed the salt water out of that narrow mouthed bay, and filled it with fresh?—The Susquehanna alone would seem to be sufficient for this, if it were not for the loss by evaporation. And yet that bay is salt quite up to Annapolis.

As to our other subject, the degrees of heat imbibed from the sun's rays by cloths of different colours, since I cannot find the notes of my experiment to send you, I must give it as well as I can from memory.

But first let me mention an experiment you may easily make yourself. Walk but a quarter of an hour in your garden when the

shines, with a part of your dress white, and a part black; then apply your hand to them alternately, and you will see a very great difference in the heat. The black will be quite hot to the touch, the white still cool.

Another. Try to burn a piece of paper with a burning glass. If it is white, you will not easily burn it;—but if you bring the focus to a black spot, or upon letters, written or printed, the paper will immediately be on fire under the letters.

Thus fullers and dyers find black cloths, of equal thickness with white ones, and hung out equally wet, dry in the sun much sooner than the white, being more readily heated by the sun's rays. It is the same before a fire; the heat of which sooner penetrates black stockings than white ones, and so is apt sooner to burn a man's shins. Also hear much sooner warmed in a black mug set before the fire, than in a white one, or in a bright silver tankard.

My experiment was this. I took a number of little square pieces of broad cloth from a tailor's pattern-card, of various colours.—There were black, deep blue, lighter blue, green, purple, red, yellow, white, and other colours, or shades of colours. I laid them all out upon the snow in a bright sun-shiny morning. In a few hours (I cannot now be exact as to the time) the black being warmed most by the sun, was sunk so low as to be below the stroke of the sun's rays; the dark blue almost as low, the lighter blue not quite so much as the dark, the other colours less as they were lighter; and the quite white remained on the surface of the snow, not having entered it at all.

What signifies philosophy that does not apply to some use!—May we not learn from hence, that black clothes are not so fit to wear in a hot sunny climate as white. In hot climates the body is more heated by the sun when we walk abroad, and are at the same time heated by the exercise, which double heat is apt to bring on putrid dangerous fevers! That soldiers and seamen, who must march and labour in the sun, should in the East or West Indies have a uniform of white? That summer hats, for men or women, should be white, as repelling that heat which gives head-aches to many, and to some the fatal stroke that the French call the *coup de soleil*? That the ladies' summer hats, however, should be lined with black, as not reverberating on their faces those rays which are reflected upwards from the earth or water? That the putting a white cap of paper or linen within the crown of a black hat, as some do, will not keep out the heat, though it would if placed without. That iron-walls being blacked may receive so much heat from the sun in the day-time, as to continue warm in some degree through the

night, and thereby keep the feet warm from frosts, or forward its melting with snow and sundry particulars of great or greater importance, that will occur from time to time to attentive minds!

B. FRANKLIN.

To the same.

On the Effect of Air on the Barometer, and the Benefits derived from the Study of Insects.

CHERRY-STREET, JUNE 11, 1780.

'Tis a very sensible question you ask, how the air can affect the barometer, when the opening is covered with wood? If indeed it was so closely covered as to admit of no communication of outward air to the surface of the mercury, the change of weight in the air could not possibly affect it. But the least crevice is sufficient for the purpose; a pin-hole will do the business. And if you could look behind the frame to which your barometer is fixed, you would certainly see some small opening.

There are indeed some barometers in which the body of mercury in the lower end is contained in a close leather bag, and so the air cannot come into immediate contact with the mercury; yet the same effect is produced. For the leather being flexible, when the bag is pressed by any additional weight of air it contracts, and the mercury is forced up into the tube; when the air becomes lighter, its pressure less, the weight of the mercury prevails, and it descends again into the bag.

Your observation on what you have lately read concerning insects is very just and solid. Superficial minds are apt to despise those who make that part of the study their study, as unwearied triflers; but certainly the world has been much obliged to them. Under the care and management of man, the labours of little silkworm find employment and subsistence to thousands of families, and become an immense article of commerce. The bee, too, yields us delicious honey, and is wax useful to a multitude of purposes. Another insect, it is said, produces the cochineal, from whence we have our rich scarlet dye. The usefulness of the cantharides or Spanish flies, in medicine, is known to all, and thousands owe their lives to that knowledge. By human industry and observation, other properties of other insects may possibly be hereafter discovered, of equal utility. A thorough acquaintance with the nature of these little creatures may also enable mankind to prevent the increase of such as are noxious, or secure us against the mischiefs they occasion. These things doubtless your books make mention of: I only add a particular late instance. I had from a Swedish gentleman of good credit. In the green timber, intended for ship-building at

the king's yard in [redacted] country, a kind of worms were found, which every year became more numerous and more pernicious, so that the ships were greatly damaged before they came into use. The king sent Linnaeus, the great naturalist, from Stockholm, to inquire into the affair, and see if the mischief was capable of any remedy. He found, on examination, that the worm was produced from a small egg, deposited in the little roughnesses on the surface of the wood, by a particular kind of fly or beetle; from whence the worm, as soon as it was hatched, began to eat into the substance of the wood, and after some time came out again a fly of the parent kind, and so the species increased. The season in [redacted] which the fly laid its [redacted] Linnaeus knew to [redacted] a fortnight (I think) in the month of May, [redacted] no [redacted] time in the year. He therefore advised, [redacted] days before that [redacted] the green [redacted] should be thrown into [redacted] water, [redacted] kept under water [redacted] the [redacted] was over. [redacted] being done by the [redacted]'s order, the flies missing the usual nests, could [redacted] increase; and the species was either destroyed or [redacted] elsewhere: and the wood was effectually preserved, for after the [redacted] year, it became too dry and hard for their purpose.

There is, however, a prudent moderation [redacted] used in studies of this kind. The knowledge of nature may be ornamental, and it may be useful, but if to attain [redacted] eminence [redacted] that, we neglect the knowledge and practice of essential duties, we deserve reprehension. For there is no rank in natural knowledge of equal dignity and importance with [redacted] of being a good parent, a good child, a good husband or wife, a good neighbour or friend, a good subject [redacted] citizen, that is, in short, a good Christian. Nicholas Gimcrack, therefore, who neglected the care of [redacted] family, [redacted] pursue butterflies, [redacted] a just object of ridicule, and we must give him up as [redacted] game to [redacted] satyrist.

[redacted] FRANKLIN.

To Dr. Joseph Priestley.

Effect of Vegetation on Nitrogen Air.

—THAT the vegetable creation [redacted] restore the air which is spoiled by the animal part of it, looks like a rational system, and seems to be of a piece with [redacted] rest. Thus fire pur [redacted] [redacted] the world over. It purifies it by distillation, when [redacted] raises it in vapours, and lets [redacted] rain; and farther still by filtration, when, keeping [redacted] fluid, it [redacted] that rain to percolate [redacted] earth. We knew before, [redacted] putrid animal substances were converted into sweet vegetables, when mixed with the earth, and applied as manure; and now, it seems, [redacted] the same putrid sub-

stances, mixed with the air, have a similar effect. [redacted] strong thriving [redacted] of your mint, in putrid air, seems to show, that the air is mended by taking something from it, and not by adding to it. I hope this will give some check to the rage of destroying trees that grow near houses, which has accompanied [redacted] our [redacted] improvements in gardening, from an opinion of their being unwholesome. I am certain, from long observation, that there is nothing unhealthy in the air of woods; for we Americans [redacted] every where our country habitations in the midst of woods, and no people on earth enjoy better health, or are more prolific.

[redacted] B. [redacted]

[redacted] the [redacted]

On the Inflammability of the Surface of certain Rivers in America.

CRAGEN-STREET, April [redacted] 1774.

In compliance with your request, I [redacted] endeavoured to recollect the circumstances of the American experiments I formerly [redacted] tioned to you, of raising a flame on the [redacted] face of some waters there.

When I passed through New Jersey in 1764, I heard it several [redacted] mentioned, that by applying a lighted candle [redacted] the surface of some of their rivers, a sudden flame would catch and spread on the water, continuing to burn [redacted] half a minute. But the [redacted] counts I received were [redacted] imperfect, [redacted] I could form no guess [redacted] the cause of such an effect, and rather doubted the truth of it. I had no opportunity of seeing the experiment; but calling to see a friend who happened to be just returning home from making it himself, I learned from him the manner of it; which was to choose a shallow place, where the bottom could [redacted] reached by a walking-stick, and was muddy; the mud [redacted] first to be stirred with the stick, and when a number of small bubbles began to arise from it, the candle [redacted] applied. The flame [redacted] so sudden and so strong, that it caught his [redacted] and spoiled it, as I [redacted] New Jersey having many pine-trees in many parts of it, I then imagined that something like a volatile oil of turpentine might [redacted] mixed with the waters from a pine-swamp, but this supposition did not quite satisfy me. I mentioned the fact to some philosophical friends on my return [redacted] England, but it [redacted] much attended [redacted] I suppose I was thought a little too credulous.

[redacted] 1765, [redacted] Reverend Dr. Chandler received a letter from Dr. Finley, President of the College in that province, relating the same experiment. [redacted] read [redacted] the Royal Society, November 21, of [redacted] year, but not printed in the Transactions; perhaps because it was thought too strange to be true, and some ridicule might [redacted] apprehended, if any member should attempt [redacted] repeat it, in order

to ascertain, or refute it. The following is a copy of that account.

"A worthy gentleman, who lives at a few miles distance, informed me, that in a certain small cove of a mill-pond, near his house, he was surprised to see the surface of the water blaze like inflamed spirits. I soon after went to the place, and made the experiment with the same success. The bottom of the creek was muddy, when stirred up so as to cause a considerable curl on the surface, and a lighted candle held within two or three inches of it, the whole surface was in a blaze, as instantly as the vapour of warm inflammable spirits, and continued when strongly agitated, for the space of several seconds. It was imagined to be peculiar to that place; but upon trial it was soon found, that such a bottom in other places exhibited the same phenomenon. The discovery was accidentally made by one belonging to the mill."

I have tried the experiment twice here in England, but without success. The first was in a slow running water with a muddy bottom. The second in a stagnant water at the bottom of a deep ditch. Being some time employed in stirring this water, I ascribed an intermitting fever, which seized me a few days after, to my breathing too much of that foul air, which I stirred up from the bottom, and which I could not avoid while I stooped, endeavouring to stir it. This discovery you have lately made, of the manner in which air is in some cases produced, may throw light on this experiment, and explain its succeeding in some cases, and failing in others. With the highest esteem and respect,

B. FRANKLIN.

To Dr. Percival.

(In the different quantities of Rain which fall at different heights over the same ground.—Read in the Philosophical Society of Manchester, January 31, 1764.)

On my return to London I found your favour of the 16th of May (1771). I wish I could, as you desire, give you a better explanation of the phenomenon in question, since you seem not quite satisfied with your own; but I think we want more and a greater variety of experiments in different circumstances, to enable us to form a thoroughly satisfactory hypothesis. Not that I make the least doubt of the facts already related, as I know both Lord Charles Cavendish and Dr. Heberden to be very accurate experimenters: but I wish to know the event of the trials proposed in your six queries; and also, whether in the same place where the lower vessel receives nearly twice the quantity of water that is received by the upper, a third vessel placed at half the height will receive a quantity pro-

portionable. I will however endeavour to explain to you what occurred to me, when I first heard of the fact.

I suppose it will be generally allowed, on a little consideration of the subject, that scarce any drop of water was, when it began to fall from the clouds, of a magnitude equal to that it has acquired, when it arrives at the earth; the same of the several pieces of hail; because they are often so large and so weighty, that we cannot conceive a possibility of their being suspended in the air, and remaining at rest, than at any time, how small soever; nor do we conceive any means of forming them so large, before they set out to fall. It seems then, that beginning drop, and particle of hail, receives continual addition in its progress downwards. This may be done in several ways: by the union of numbers in their course, so that what was at first only descending mist, becomes a shower; or by each particle, in its descent through air that contains a great quantity of dissolved water, striking against, attaching to itself, and carrying down with it such particles of that dissolved water, as happen to be in its way; or attracting to itself such as do not lie directly in its course by its different state, with regard either to common or electric fire; or by all these causes united.

The first, by the uniting of numbers, larger drops might be made, the quantity falling in the same place would be the same at all heights; unless, you mention, the whole should be contracted in falling, the lines described by all the drops converging, so that what set out to fall from a cloud of many thousand acres, should reach the earth in perhaps a third of that extent, of which I am what doubt. In the other cases we have two experiments.

1. A dry glass bottle with very cold water, in a warm day, will presently collect from the seemingly dry air that surrounds it a quantity of water, that its sides, which perhaps is done by the power wherewith the water attracts the fluid, fire that had been united with the dissolved water in the air, and drawing the fire through the glass itself, leaves the water on the outside.

2. An electrified body left in a room for some time, will be more covered with dust than other bodies in the same room not electrified, which dust seems to be attracted from the circumscribed air.

Now we know that the rain, even in the coldest days, comes from a very high region. Its falling sometimes in the form of ice, shows this clearly; and perhaps even the rain is snow or ice, when it first moves downwards, though thawed in falling: and we know that the drops of rain are often electrified: and those causes of addition to each drop of water or

piece of hail, one would think could not long continue to produce the same effect; since the air, through which the drops fall, must soon be stripped of its previously dissolved water, so as to be no longer capable of augmenting them. Indeed very heavy showers, of either, are never of long continuance; but moderate rains continue so long as to puzzle every hypothesis; so upon the whole I think, as I intimated before, that we are yet hardly ripe for making one. B. FRANKLIN.

Mr. Nairne, London.

On the properties of an Hygrometer—Read in the Transactions of the American Philosophical Society, January 26, 1770.

PARIS, Nov. 13, 1770.

The qualities sought in a hygrometer, or instrument to discover degrees of moisture and dryness in the air, have been, an aptitude to receive humidity readily from a moist air, and to part with it as readily to a dry air. Some substances have been found to possess more or less of this quality; but when we shall have found the substance that has in the greatest perfection, there will remain some uncertainty in the conclusions to be drawn from the degree shown by the instrument, arising from the actual of the instrument itself as to heat and cold. Thus, if two bottles or vessels of glass or metal being filled, the one with cold and the other with hot water, be brought into a room, the moisture of the air in the room will attach itself in quantities to the surface of the cold vessel, while if you actually wet the surface of the hot vessel, the moisture will immediately quit it, and be absorbed by the same air. And thus, in a sudden change of the air from cold to warm, the instrument remaining longer cold, may condense and absorb more moisture, and mark the air as having become more humid than it is in reality, and the contrary in a change from warm to cold.

If such a suddenly changing instrument could be freed from its imperfections, yet when the design is to discover the different degrees of humidity in the air of different countries, I apprehend the quick sensibility of the instrument to be rather a disadvantage; since to draw the desired conclusions from it, a constant and frequent observation day and night in each country will be necessary for a year or y of different sets of observations and determined. After which some uncertainty will remain respecting the different degrees of exactitude with which different persons may have made and taken notes of their observations.

For these reasons, I apprehend that a substance which, though capable of being affected by moisture and contracted by dryness, is

so slow in receiving and parting with its humidity, that the frequent changes in the atmosphere have not time to affect it sensibly, and which therefore should gradually take nearly the medium of all those changes and preserve it constantly, would be the proper substance of which to make such an hygrometer.

Such an instrument, you, my dear sir, though without intending it, have made for me; and I, without desiring or expecting it, have received from you. It is therefore with propriety that I address to you the following account of it; and the more, as you have both a head to contrive and a hand to execute the means of perfecting it. And I do this with greater pleasure, as it affords me the opportunity of renewing my correspondence and acquaintance with you, which to me is always so pleasing and so instructive.

You may possibly remember, that in or about year 1768, you made for me a set of artificial magnets, six in number, each five and a half inches long, half an inch broad, and one eighth of an inch thick. These, with two pieces of soft iron, which together equalled one of the magnets, enclosed in a little box of mahogany wood, the grain of which ran with, and not across, the length of the box; and the box was closed by a little shutter of the same wood, the grain of which ran across the box; and the ends of this shutting piece were bevelled so as to fit and slide in a kind of dovetail groove when the box was to be shut or opened.

I have been of opinion, that good mahogany wood was not affected by moisture so as to change its dimensions, and that it was always to be found as the tools of the workman left it. Indeed the difference at different times in the country is so small as to be scarcely in any way observable. Hence the box, which was made as to allow sufficient room for the magnets to slide out and in freely, and, when in, afforded them so much play that by shaking the box could make them strike the opposite sides alternately, continued the same state all the time I remained in England, which was four years, without any apparent alteration. I left England in August 1769, and arrived at Philadelphia in October of the same year. In a few weeks after my arrival, being desirous of showing your magnets to a philosophical friend, I found them so tight in the box, that it was with difficulty I got them out; and constantly during the five years I remained there, viz. November 1764, the difficulty of getting them out and in continued.

The shutter too, as wood does not shrink lengthways of the grain, was too long to enter its groove, and, not being used, was mislaid and lost; and afterwards I had another made that fitted.

In December, 1764, I returned to England,

and after some time I observed that my box was become full big enough for my magnets, and too wide for my new shutter; which was so much too short for its grooves, that it was apt to fall out; and to make it keep in I lengthened it by adding to each end a little coat of sealing-wax.

I continued in England more than ten years, and during all that time, after the first change, I perceived no alteration. The magnets had the same freedom in their box, the little shutter continued the added sealing-wax to fit its grooves, till some weeks after my second return to America.

As I could not imagine any other cause for this change of dimensions in the box, when in different countries, I concluded, first generally that the air of England was moister than that of America. And this I supposed an effect of its being an island, where every thing must necessarily pass some sea before it arrived, and of course lick up some vapour. I afterwards doubted whether it might be just only so far as related to the city of London, where I resided; because there are many of moisture in the city air, which exist to the same degree in the country; such as the brewers and dyers boiling caldrons, and the great number of pots and tea-kettles continually on the fire, sending abundance of vapour; and also the number of animals who by their breath continually increase it; to which may be added, that even the vast quantity of sea coals burnt there, do in kindling, discharge a great deal of moisture.

When I was in England the last time, you also made for me a little achromatic pocket telescope, the body was brass, and it had a round (I think of thin wood) covered with shagreen. All the while I remained in England, though possibly there might be some changes in the dimensions of this case, I neither perceived nor suspected any. There was always comfortable room for the telescope to slip in and out. But soon after I arrived in America, which was in May 1775, it became too small; the instrument, it was with much difficulty and various contrivances that I got it out, and I could never after get it in again, during my stay there, which was eighteen months. I brought it me to Europe, but left the case as useless, imagining I should find continental air of France as dry as that of Pennsylvania, where my magnet box had also returned a second time to its narrowness, and pinched the pieces, as heretofore, obliging me too, to scrape sealing-wax off the ends of the shutter.

I had been long in France, before I was surprised to find, that my box was become as large as it had always been in England, the magnets came out

the same freedom, and when in, I could rattle them against its sides; this has continued to be the case without sensible variation. My habitation is out of Paris distant almost a league, so that the moist air of the city cannot be supposed to have much effect upon the box. I am on a high dry hill, in a free air, as likely to be dry as any air in France.—Whence it seems probable that the air of England in general may, as well as that of London, be moister than the air of America, since that of France is so, and in a part so distant from the sea.

The greater dryness of the air in America appears from some other observations. The cabinet work formerly us from London, which consisted in thin plates of fine glued upon fir, never would stand with us; the veneering, as those plates are called, would get loose and come off: both woods shrinking, and their grains often crossing, they for ever cracking and flying. In my electrical experiments there, it was remarkable, that a mahogany table, on which my jar stood under the prime conductor was charged, would often be so dry, particularly when the wind had been some time north-west, which with us is a very drying wind, as to isolate the jar, and prevent their being charged till I had formed a communication between their coatings and the earth. I had a like table in London, which I used for the purpose the while I resided there; but it never so dry as to refuse conducting the electricity.

Now what I would beg leave to recommend to you, is, that you would recollect, if you can, the species of mahogany of which you made my box, for you know there is a good deal of difference in woods that go under the same name; or if that cannot be, that you would take a number of pieces of the closest and finest grained mahogany that you can find with, plane them to the thinness of about a line, the width of about two inches, the length of about six feet, and fix each of the pieces in some instrument that you can contrive, which will permit them to dilate, and will show, in sensible degrees, by a moveable hand upon a marked scale, the otherwise less sensible quantities of such contraction and dilation. If these instruments are all kept in the same place while making, and graduated together while subject to the same degrees of moisture or dryness, I apprehend I will have so many comparable hygrometers, which, being sent into different countries, and continued there for some time, will find and show there the mean of different dryness and moisture of the air of those countries, and that with much less trouble than by any hygrometer hitherto in use.

B. FRANKLIN

To Dr. John Pringle.

On the Difference of Navigation in shoal and deep Water.

GRAVEY-STREET, May 16, 1768.

You may remember, that when we were travelling together in Holland, you remarked, that the trackschuyt in one of the stages went slower than usual, and inquired of the boatman, what might be the reason; who answered, that it had been a dry season, and the water in the canal was low. On being asked if it was so low as that the boat touched the muddy bottom; he said, no, not so low as that, but so low as to make it harder for the horse to draw the boat. We neither of us at first could conceive that if there was water enough for the boat to swim clear of the bottom, its being deeper would make any difference; but as the man affirmed it seriously, as a thing well known among them; and as the punctuality required in their stages was likely to make such difference, if any there were, more readily observed by them than by other watermen who did not pass so regularly and constantly backwards and forwards in the same track; I began to apprehend there might be something in it, and attempted to account for it from this consideration, that the boat in proceeding along the canal, must in every boat's length of her course, move out of her way a body of water, equal in bulk to the room her bottom took up in the water; that the water so moved must pass on each side of her and under her bottom to get behind her; that if the water under her bottom was straitened by the shallows, more of that water must pass by her sides, and with a swifter motion, which would retard her, as moving the contrary way; or that the water becoming lower behind the boat than before, she was pressed back by the weight of its difference in height, and her motion retarded by having that weight constantly to overcome. But as it is often lost time to attempt accounting for uncertain facts, I determined to make an experiment of this when I should have convenient time and opportunity.

After our return to England, as often as I happened to be on the Thames, I inquired of our boatmen whether they were sensible of any difference in rowing over shallow or deep water. I found them all agreeing in the fact, that there was a very great difference, but they differed widely in expressing the quantity of the difference; some supposing it was equal to a mile in six, others in three, &c. As I did not recollect to have met with any mention of this matter in our philosophical books, and conceiving that if the difference should really be great, it might be an object of consideration in many projects now on foot for digging new navigable

in this island, I lately put my design of making the experiment in execution, in the following manner.

I provided a trough of plained boards fourteen feet long, six inches wide and six inches deep, in the clear, filled with water within half an inch of the edge, to represent a canal. I had a loose board of nearly the same length and breadth, that, being put into the water, might be sunk to any depth, and fixed by little wedges where I would choose to have it stay, in order to make different depths of water, leaving the surface at the same height with regard to the sides of the trough. I had a little boat in form of a lighter or boat of burden, six inches long, two inches and a quarter wide, and one inch and a quarter deep. When swimming, it drew one inch water. To give motion to the boat, I fixed one end of a long silk thread to its bow, just even with the edge, the other end passed over a well made pulley, of about six inch diameter, turning freely on a small axis; and a shilling was the weight. Then placing the boat at one end of the trough, the weight would draw it through the water to the other.

Not having a watch that shows seconds, in order to measure the time taken up by the boat in passing from end to end, I counted as fast as I could count to ten repeatedly, keeping an account of the number of tens on my fingers. And as much as possible to avoid any little inequalities in my counting, I repeated the experiment a number of times at each depth of water, that I might take the medium. And the following are the results.

Water inches deep.	3 inches.	4 1/2 inches
1st exp. 100. 84. 79.		
2. 104. 83. 78.		
3. 104. 82. 77.		
4. 106. 87. 78.		
5. 106. 86. 79.		
6. 106. 86. 80.		
7. 106. 90. 79.		
8. 106. 88. 81.		
Mean	717	652
	280	79

I made many other experiments, but the above are those in which I was most exact; and they are sufficiently to show that the difference is considerable. Between the deepest and shallowest, the time may be somewhat more than one hour, that supposing large canals and the depths of water to bear the same proportions, four men or horses would draw a boat in deep water four leagues in four hours, it would require five to draw the same boat in the same time as in shallow water; or four would require five hours.

Whether this difference is of consequence enough to justify a greater expense in deepening canals, is a matter of calculation, which our ingenious engineers in that way will duly determine.

FRANKLIN.

FRANKLIN'S WORKS

Alphonse Le Roy, Paris.

Improvements in Navigation.—Read in the American Philosophical Society, December 2, 1785.

At sea, on board the London Packet, Capt. Truxton. August 1788.

Your learned writings on the navigation of the ancients, which contain a great deal of curious information, and your very ingenious contrivances for improving the modern sails (voiles) of which I am with great pleasure assured on the river Seine, have induced me to devote to your consideration and judgment, some thoughts I have had on the latter subject.

Those mathematicians, who have endeavoured to improve the swiftness of vessels, by calculating to find the form of least resistance, seem to have considered a ship as a body moving through water only, the water; to have given little attention to the circumstances of her moving through another fluid, the air. It is true that when a vessel is right before the wind, the circumstance is of no importance, because the wind goes with her; but in every deviation from that course, the resistance of the air is something, and becomes greater in proportion as that deviation increases. I waive at present the consideration of those different degrees of resistance given by the air to that part of the hull which is above water, and confine myself to that given by the sails: for their motion through the air is resisted by the air, as the motion of the hull through the water is resisted by the water, though with less force, as the air is a lighter fluid. And to simplify the discussion as much as possible, I would consider the situation only, to wit, that of a wind upon the beam, the ship's course being directly across the wind: and I would suppose the sail set in an angle of 45 degrees with the keel, as in the following figure; in the Plate, Fig 1.

A B represents the body of the vessel, C the position of the sail, EEE the direction of the wind, MM the line of motion. In observing this figure it will appear, that so much of the body of the vessel as is immersed in the water must, to go forward, be moved out of its way as much as is out of its way with between the prick-lines. And the sail, to go forward, must move out of its way as much as its whole dimension is with between the prick-lines CG and DG. Thus both the fluids give resistance to the motion, each in proportion to the quantity of matter contained in the dimensions to be removed. And though the air is vastly lighter than the water, and therefore more easily removed, yet the dimension being much greater its effect is very considerable.

It is true that in the case stated, the resistance given by the air between those lines

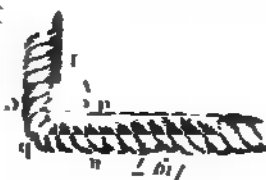
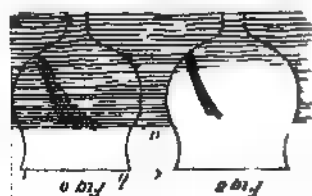
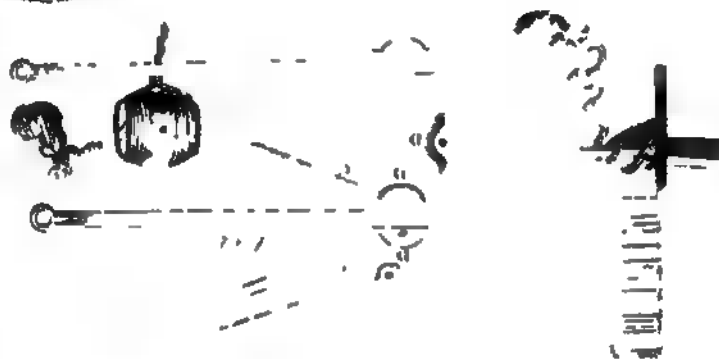
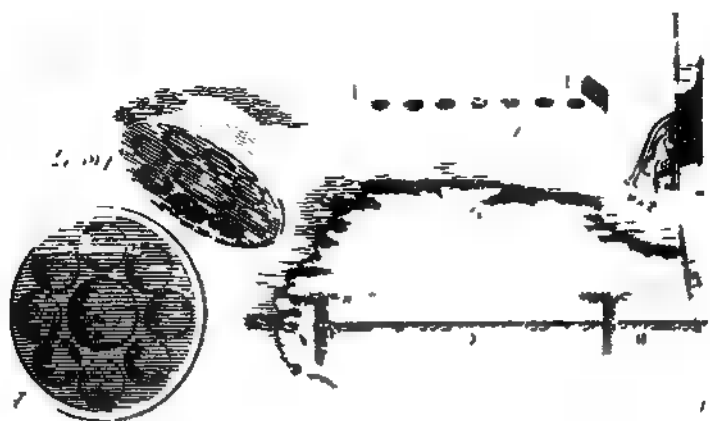
to the motion of the sail is not apparent to the eye, because the greater force of the wind, which strikes it in the direction EEE, overpowers its effect and keeps the sail full in the curve a, a, a, a, a. But suppose the wind to cease, and the vessel in a calm to be impelled with the same swiftness by oars, the sail would then appear filled in the contrary curve b, b, b, b, b, when prudent men would immediately perceive, that the air resists its motion, and would order it to be taken in.

Is there any possible way of diminishing the resistance, while the same quantity of sail is exposed to the action of the wind, and therefore the same force obtained from it? I think there is, and that it may be done by dividing the sail into a number of parts, and placing those parts in a line behind the other; thus instead of one sail extending from C to D, figure 2, if four sails containing together the same quantity of canvas, were placed as in figure 3, each having one quarter of the dimensions of the great sail, and exposing a quarter of its surface to the wind, each will give a quarter of its force; so that the whole force obtained from the wind would be the same, while the resistance from the air would be nearly reduced to the space between the prick'd lines a b and c d, before the foremost sail.

It may perhaps be doubted whether the resistance from the air would be so diminished; since possibly each of the following sails having also a resistance before it, which must be removed, the resistance of the whole would be the same.

This is then a matter to be determined by experiment. I will mention that I many years since made with success for another purpose; and I will propose another small one easily made. If that too succeeds, I should think it worth while to make a larger, though at present it is only a river boat; perhaps time, the improvements experiments will afford, may make it applicable with advantage to larger vessels.

Having in my kitchen chimney a round hole of eight inches diameter, through which was a constant steady current of air, increasing or diminishing only as the fire increased or diminished, I contrived to place my jack so as to receive the current; and taking the flyers, I fixed in their stead on the same pivot a round tin plate of nearly the same diameter with the whole; having in it radial lines almost to the centre, so as to have six equal vanes, I gave to each an obliquity of forty-five degrees. They moved round, without the weight, by the impression only of the current of air, too slowly for the purpose of roasting. I suspected that the air struck by the back of each vane might possibly by its resistance retard its motion; and to try this, I cut each of them



into two, and I placed the twelve, each having the same obliquity, in a line behind each other, when I perceived a great augmentation in its velocity, which encouraged me to divide them once more, and continuing the same obliquity, I placed the twenty-four behind each other in a line, when the force of the wind being the same, and the surface of the same, they round much greater rapidly, and perfectly answered my purpose.

The second experiment that I propose, is to take two playing cards of the same dimensions, and cut one of them transversely into eight equal pieces; then with a needle string them upon a thread one each end, place them so upon the threads that, when hung up, they may be exactly the same, the other, at a distance equal to their breadth, each in a horizontal position; and let a small weight, such as a bird-shot, be hung under them, to make them fall in a straight line when loose. Suspend also the whole card by threads from its four corners, and hang it an equal weight, so as to draw it downwards when let fall, its whole breadth pressing against the air. Let those two bodies be attached, one of them to one end of a thread a yard long, the other to the other end. Extend a twine under the ceiling of a room, and put through it thirty inches distance two pins bent in the form of fish-hooks. On these hooks hang the two bodies, the thread that connects them extending parallel to the twine, which thread being cut, they must begin to fall at the same instant. If they take equal time in falling to the floor, it is a proof that the resistance of the air is in both cases equal. If the whole card requires a longer time, it shows that the resistance of the resistances to the pieces of the cut card is not equal to the resistance of the whole one.*

This principle so far confirmed, I would proceed to make a larger experiment, with a shallop, which I would rig in this manner. Name plate, Fig. 4.

A B is a long boom, from which are hoisted seven jibs, a, b, c, d, e, f, g, each a seventh part of the whole dimensions, and so much so that they will fill the whole space when set in an angle of forty-five degrees, so that they may lap when going before the wind, and hold when going large. Thus rigged, when going right before the wind, the boom is brought to right angles with the keel, by means of the sheet ropes C D, and the sails hauled flat to the boom.

These positions of boom and sails to be varied to the wind quarters. But when the wind is to the beam, when you would turn to windward, the boom is to be hauled right

fore and aft, and the sails trimmed according as the wind is more or less against your course.

It seems to me that the management of a shallop so rigged would be very easy, the sails being run up and down separately, so that more or less sail may be set at pleasure; and I imagine, that there being full as much sail exposed to the force of the wind which impels the vessel in its course, as the whole were in one piece, and the resistance of the dead air against the foreside of the sail being diminished, the advantage of swiftness would be very considerable; besides that the vessel would lie nearer the wind.

Since I am on the subject of improvements in navigation, permit me to detain you a little longer with a small relative observation. Being, in one of my voyages, with ten merchant-ships under convoy of a frigate at anchor in Torbay, waiting for a wind to go to the westward; it came fair, but brought in with it a considerable swell. A signal was given for weighing, and we put to sea altogether; but three of the ships left their anchors, their cables parting just as their anchors came a-pok. Our cable held, and we got up our anchor; but the shocks the ship felt before the anchor got loose from the ground, made me reflect on what might possibly have caused the breaking of the other cables; I imagined it might be the short bending of the cable just without the hause-hole, from a horizontal to an almost verticle position, and the sudden violent jerk it receives by the rising of the head of the ship, the swell of a wave while in that position. For example, suppose a vessel bore up so as to have her head nearly over her anchor, which still keeps its place perhaps in a tough bottom: if it is calm, the cable still out would form nearly a perpendicular line, measuring the distance between the hause-hole and the anchor; but if there is a swell, her head in the trough of the sea will be below the level, and when lifted the cable will be much above it. In the first case the cable will hang loose, and bend perhaps as in figure 5. In the second case, figure 6, the cable will be drawn straight with a jerk, and sustain the whole force of the rising ship, and must either loosen the anchor, resist the rising force of the ship, or break. But why does it break at the hause-hole?

Let us suppose it a cable of three inches diameter, and represented by figure 7. If this cable is to be bent round the point A, it is evident that either the part of the triangle contained between the letters a, b, c, must stretch considerably, and those next that are nearest the surface; or that the parts between d, e, f, must be compressed: or both, which probably happens. In the lower half of the thickness the strength against the jerk, not being strained, the upper half bears the whole, the yarns

* The motion of the vessel made it inconvenient to try this simple experiment at sea, when the proposal of it was written. But it has been tried since we came on shore, and succeeded as the other.

near the surface being first and most strained, break first, and the next yarns follow; for in this bent situation they cannot bear the strain altogether, and each contributes its strength to the whole, as they do when the cable is strained in a straight line.

To remedy this, methinks it would be well to have a kind of large pulley wheel, fixed in the house-hole, suppose of two feet diameter, over which the cable might pass; and being there bent gradually to the round of the wheel, would thereby be more equally strained, and better able to bear the jerk, which may save the anchor, and by that means in the course of the voyage to save the ship.

One maritime observation more shall finish this letter. I have been a reader of newspapers now near seventy years, and I think few pass without an account of some vessel with at with no living soul on board, and so many feet of water in her hold, which vessel has nevertheless been saved and brought into port: and when not met with at sea, such forsaken vessels have often come ashore on some coast. The crews, who have taken to their boats and thus abandoned such vessels, are sometimes met with and taken up at sea by other ships, sometimes reach a coast, and are sometimes never heard of. That give an account of quitting their vessels generally say, that she sprung a leak they pumped for some time, that the water continued to rise upon them, and that, despairing to save her, they had quitted her lest they should go down with her. It seems by the event that this fear was not always well founded, and I have endeavoured to guess at the reason of the people's too hasty discouragement.

When a vessel springs a leak near her bottom, the water enters with all the force given by the weight of the column of water, without which force is in proportion to the difference of level between the water without and that within. It enters therefore with more force at first and in greater quantity, than it can afterwards when the water within is higher.—The bottom of the vessel too is narrower, so that the same quantity of water coming into that narrow part, rises faster than when the space for it to flow is larger. This helps to terrify. As the quantity entering is less and less as the surfaces without and within become more nearly equal in height, the pumps that could not keep the water from rising at first, might afterwards be able to prevent its rising higher, and the people might have remained on board in safety, without hazarding themselves in an open boat on the wide ocean. (Fig. 8.)

Besides greater equality in the height of the two surfaces, there may sometimes be other causes that retard the farther sinking of a leaky vessel. The rising water within

may arrive at quantities of light wooden work, empty chests, and particularly empty water-casks, which if fixed so as not to float themselves may help to sustain her. Many bodies compose a ship's cargo be specifically lighter than water, all these when out of water are an additional weight to that of the ship, and she is in proportion pressed deeper into the water; but as soon as these bodies are immersed, they weigh no longer on the ship, but on the contrary, if fixed, they help to support her, in proportion as they are specifically lighter than the water. And it should be remembered, that the largest body of a ship may be so balanced in the water, that an ounce less or more of weight may leave her at the surface or sink her to the bottom. There are also certain heavy cargoes, that, when the water gets at them, are continually dissolving, thereby lightening the vessel, such as sugar. And as the water-casks mentioned above, since the quantity of water great in ships of war where the number of great deal of water every day, if it been made a constant rule to bung them up as fast as they emptied, and to dispose the empty casks in proper situations, I am persuaded that many ships which have been in engagements, or have gone down afterwards, might with the unhappy people have been saved; as well as of those which in the last war foundered, were never heard of. While on this topic of sinking, one help recollecting the well known practice of the Chinese, divide the hold of a great ship into a number of separate chambers by partitions tight caulked (of which you gave a model in your boat upon the Seine) so that if a leak should spring in one of them the others are not affected by it; and though that chamber should fill to a level with the sea, it would not be sufficient to sink the vessel.—We have not imitated this practice. Some little disadvantage it might be in the stowage perhaps, though that I might be compensated by an abatement in the insurance that would be reasonable, and by a higher price of passengers, who would rather prefer going in such a vessel. But our sea-faring people are brave, despise danger, and reject such precautions of safety, being cowards only in sense, that of fearing to be thought afraid.

I promised to finish my letter with the last observation, but the garrulity of the old has got hold of me, and as I may never have another occasion of writing on this subject, I think I may as well now, once for all, empty my mantle budget, and give you all thoughts that have in my various long voyages occurred to me relating to navigation. I am sure that in you they will meet a can-

did judge, who will excuse my mistakes on account of my good intention.

There are six accidents that may occasion the loss of ships at sea. We have considered one of them, that of foundering by a leak.—The other five are 1. Oversetting by sudden flaws of wind, 2. by carrying beyond the bearing. 3. Fire by accident or carelessness. 4. A heavy stroke of lightning, making a breach in the ship, or firing the powder. 5. Meeting and shocking with other ships in the night. 6. Meeting at night with islands of

To that of oversetting, privateers in their cruize have, fallen within my knowledge or information, been more subject than any other kind of vessels. The double desire of being able to overtake a weaker flying enemy, or to escape when pursued by a stronger, has induced the owners to overmast their cruisers, and to spread too much canvas; and the great number of men, many of them not seamen, who being upon deck when a ship heels suddenly are huddled down to leeward, and by their weight the effect of the wind. This therefore should be more attended to and guarded against, especially as the advantage of lofty masts is problematical. For the upper sails have greater power to lay a vessel more on her side, which is not the most advantageous position for going swiftly through the water. And hence it is that vessels, which have lost their lofty masts, and are able to make little more sail afterwards, have permitted the ship to sail upon an even keel, have made much way, even under jury masts, to surprise the mariners themselves. But there is besides, something in the modern form of our ships that is calculated expressly to allow their oversetting easily. The sides of a ship, instead of spreading out as they formerly were in the upper works, of late years turned in, so as to make the body nearly round, and resembling a cask. I do not know what the advantages of this construction are, except that such ships are not easily boarded. To it it is a contrivance to have less room in a ship nearly the same expense. For it is evident that the same timber and plank consumed in raising the sides from a to b, and from d to e, would have raised them from a to e, and from d to f, fig. 9. In the form all the spaces between e, a, h, and c, d, f, would have been gained, the deck would have been larger, the men would have had more room to act, and not have stood so thick in the way of the enemy's shot; and the vessel, the more she laid down on her side, the more bearing she would meet with, and more effectual to support her, so being farther from the Whereas in the present form, her ballast makes the chief part of her bearing, without which she would turn in the

sea almost as easily as a barrel. More ballast by this necessary, and that sinking a deeper in the water occasions more resistance to her going through it. The Bermudian sloop keeps with advantage to the old spreading form. Islanders in the great, though they have no large ships, are the most expert boat-sailors in the world, navigating that sea safely with their proas, which they prevent over-setting by various means. Their sailing proas for this purpose have outriggers, generally to windward, above the water, on which, one or more men are placed, to move occasionally further from or nearer to the vessel as the wind freshens or slackens. But some have their outriggers to leeward, which, on the water, support the boat so as to keep her upright when pressed down by the wind. Their boats moved by oars or rather paddles, are for long voyages, and are together by cross bars of wood, keep at some distance from each other, and so render their oversetting next to impossible. How far this may be practicable in larger vessels, I have not yet sufficient experience. I know of but one trial made in Europe, which was about one hundred years since, by Sir Wm. Petty. He built a double vessel, to serve as a packet boat between England and Ireland. Her model still exists in the museum of the Royal Society, where I have seen it. By the we have of her, she answered well the purpose of her construction, making several voyages; and though wrecked at last by a storm, the misfortune did not appear owing to her particular construction, many other vessels of the form wrecked at the same time. The advantage of such a vessel is: that she needs no ballast, therefore swims either lighter or will carry more goods, and that she is not so much incommoded by her rolling: which may be added that if she is to defend herself by her cannon, they will probably have more effect, being kept more generally in a horizontal position, than those in common vessels. I think, however, that it would be an improvement of the model, to make the sides which are opposed to each other perfectly parallel, though the other sides are formed as common, thus, figure 10.

The building of a double ship would indeed be more expensive in proportion to her burden; and that perhaps is sufficient to discourage the method.

The accident of fire is generally well guarded against by the prudent captain's strict orders against smoking the decks, or carrying a candle there out of a lantern. But there is one dangerous practice which frequent terrible accidents have yet been abolish; that of carrying spirits to sea in casks. Two large ships

an hour; so that in a storm continuing fifty hours, which is not an uncommon case, the ship may drive one hundred miles out of her course; and should she in that distance meet with a lee shore, she may be lost.

To prevent this driving to leeward in deep water, a swimming anchor is wanting, which might have these properties.

1. It should have a surface so large as, being at the end of a hauser in the water, and placed perpendicularly, would hold so much of it, as to bring the ship's head to the wind, in which situation the wind has least power to drive her.

2. It should be able by its resistance to prevent the ship's receiving way.

3. It should be capable of being situated below the heave of the sea, but not below the undertow.

4. It should not take up much room in the ship.

5. It should be easily thrown out, and put into its proper situation.

6. It should be easy to take in again, and stow away.

An ingenious old mariner, whom I formerly knew, proposed, as a swimming anchor for a large ship, to have a piece of wood twenty-five feet long and four inches square, with four boards of 18, 16, 14 and 12 feet long, and one foot wide, the boards to have their ends thickened several inches in the middle by additional wood, and to have each a four inch square hole through its middle, to permit its being slipped on occasionally upon the stem, and at right angles with it: where all being placed and fixed at four feet distance from each other, it would have the appearance of the old mathematical instrument called a forestaff. This thrown into the sea, and held by a hauser veered out at its full length, he conceived would bring a vessel up, and prevent her driving, and when taken in might be stowed away by separating the boards from the stem (Figure 15.) Probably such a swimming anchor would have some good effect, but it is subject to this objection, that laying on its surface of the water, it is liable to be borne forward by every wave, and thereby give so much leave for the ship to drive.

Two machines of this purpose have occurred to me, which, though not so simple as the above, I imagine would be more effectual, and more easily manageable. I will endeavour to describe them, and they may be such as your judgment, whether they would be serviceable; and they would, to which we should give the preference.

The first is to be formed, and to be used in the water on almost the same principles with those of a paper kite used in the air. Only as the paper kite rises in the air, this is to descend in the water. Its dimensions will be different for ships of different size.

It should be made one of suppose fifteen feet high; take a small spar of that length for the backbone, A B, figure 16, a smaller of half that length C D, for the cross piece. Let these be united by a bolt at E, yet so as that by turning on the bolt they may be laid parallel to each other. Then make a sail of strong canvas, in the shape of figure 17. To form this, without waste of sail-cloth, sew together pieces of the proper length, and for half the breadth, as in figure 18, then cut the whole in the diagonal lines a, b, c, and turn the piece F so as to place its broad part opposite to that of the piece G, and the piece H in like manner opposite to I, which when all sewed together will appear as in fig. 17. This sail is to be extended on the cross of fig. 16, the top and bottom points well secured to the ends of the long spar; the two side points d, e, f, g, h, i, the ends of two cords, which coming from the angle of the loop (which must be similar to the loop of a kite) pass through two rings at the ends of the short spar, so as that on pulling upon the loop the sail will be drawn to its extent. The whole may, when aboard, be furled up, as in figure 19, having a rope from its broad end, to which is tied a bag of ballast for keeping that end downwards when in the water, and the other end another rope with an empty keg at its end to float on the surface; this rope long enough to permit the kite's descending into the undertow, or if you please lower into the water. It should be held by a hauser. To get it home easily, a small loose rope may be veered out with it, fixed to the keg. Hauling on that rope will bring the kite home with small force, the resistance being small, as it will then come end

It seems probable that such kite at the end of a long hauser would keep a ship with her head to the wind, and, resisting every tug, would prevent her driving so fast as when her side is exposed to it, and nothing to her back. If only half the driving is prevented, so as that she would but fifty miles instead of the hundred during a storm, it may be an advantage, both in holding her distance as is saved, and in keeping from a lee-shore. If single canvas should be used, it is strong enough to bear the tug without splitting, it may be doubled, or strengthened by a netting behind it, represented by figure 20.

The other machine for the same purpose, is to be made more in the form of an umbrella, as represented, figure 21. The stem of the umbrella, a square spar of proper length, with four moveable arms, of which three are represented C, C, C, figure 21. These arms to be fixed in four joint cleats, as D, D, &c. one on each side of the spar, but so as that the four arms may open by turning on a pin at the joint. When open they form a cross, on which a four-square canvas sail is to be extended,

given six arms to the catfish, they are joined to the stem by iron hinges, and the canvas is double. He has taken it with him to China. February 1768.

descend in the water. Its dimensions will be ' joint When open they form a cross, on which
different for ships of different size. a four-square canvas sail is to be extended,

its corners fastened to the ends of the four arms. Those ends are also to be stayed by ropes fastened to the stem or spar, so as to keep them short of being at right angles with it: and to the end of one of the arms should be hung the small bag of ballast, and to the end of the opposite arm the empty bag. This, on being thrown into the sea, would immediately open; and when it had performed its function, and the storm over, a small rope from its other end being pulled on, would turn it, close it, and draw it easily home to the ship. This machine seems more simple in its operation, and more easily manageable than the first, and perhaps may be as effectual.*

Vessels are sometimes retarded, and sometimes forwarded in their voyages, by currents at sea, which are often not perceived. About the year 1768, or 70, there was an application made by the board of customs at Boston, to the lords of the treasury at London, complaining that the packets between Falmouth and New York, were generally a fortnight longer in their passages, than the fastest ships from Falmouth to Rhode-Island, and proposing that for the future they should be ordered to Rhode-Island instead of New York. Being then concerned in the management of the American post-office, I happened to be consulted on the occasion; and it appearing strange to me that there should be such a difference between these places, scarce a day's run asunder, especially when the merchant-ships are generally deeper laden, and more weakly manned than the packets, and had from London the whole length of the river and channel to run before they left the land of England, while the packets had only to go from Falmouth, I could not but think the fact misunderstood or misrepresented. There happened then to be in Nantucket sea-captain of my acquaintance, to whom I communicated the affair. He told me he believed the fact might be true; but the difference was owing to this, that the Rhode-Island captains were acquainted with the gulf stream, which those of English packets were not. We are well acquainted with that stream, says he, because in our pursuit of whales, which keep the sides of it, but are not to be met with in it, we run down along the sides, and frequently cross to change our side: and in crossing it have sometimes met and spoken with those packets, who were in the middle of it, and stemming it. We have informed them that they were stemming a current, that was against them the value of three miles an hour; and advised them to cross it and get out of it; but they were too wise to be counselled by simple Americans. When the winds are but light,

he added, they are carried back by the current more than they are forwarded by the wind: and if the wind be good, the subtraction of 70 miles a day from their course is of some importance. I then observed it was a pity no notice was taken of this current upon the charts, and requested him to mark it out for me, which he readily complied with, adding directions for avoiding it in sailing from Europe to North America. I procured it to be engraved by order from the general post-office, on the old chart of the Atlantic, at Mount and Page's Tower-hill; and copies were sent down to Falmouth for the captains of the packets, who alighted it however; but it is since printed in France, of which edition I hereto annex a copy.*

This stream is probably generated by the great accumulation of water on the eastern coast of America between the tropics, by the trade-winds which constantly blow there. It is known that a large piece of water ten miles broad and generally only three feet deep, has by a strong wind its surface driven to one side and sustained so as to become six feet deep, while the windward side was laid dry. This may give some idea of the quantity heaped up on the American coast, and the reason of its running down in a strong current through the islands into the bay of Mexico, from thence issuing through the gulf of Florida, and proceeding along the coast to the banks of Newfoundland, where it flows off towards and down through the Western Islands. Having since crossed this stream several times in passing between America and Europe, I have been attentive to sundry circumstances relating to it, by which to know when one is in it; and besides the gulph weed with which it is interspersed, I find that it is always warmer than the sea on each side of it, and that it does not sparkle in the night: I annex hereto the observations made with the thermometer in two places, and possibly may add a third. It will be seen from them, that the thermometer may be an useful instrument to a navigator, in ascertaining currents coming from the northward into southern seas, will probably be found colder than the water of those seas, as the currents from the southern into northern are found warmer. And it is not to be wondered that so vast a body of deep warm water, several leagues wide, coming from between the tropics and issuing of the gulph into the northern seas, should retain its warmth longer than the twenty or thirty miles required to its passing the banks of Newfoundland. The quantity is too great, and it is too deep to be suddenly cooled by passing under a cooler air. The air immedi-

* C. Main Truxton, on board whose ship this was written, has executed this proposed machine; he has given the arms to the umbrellas, they are joined to the stem by iron hinges, and the covers is double. He has taken it with him to Falmouth, February, 1768.

* The map in this edition has been corrected so as to conform in one view, the theory of the Gulf Stream, and the theory of the migration of fish; some attention has been paid also to Valney's suggestions on the subject of the Gulf Stream. See the plate.

ately over it, however, may require so much warmth from it as to be rarefied and rise, being lighter than the air on each side of the stream; hence those air-plants flow in to supply the place of the rising warm air, and, meeting with each other, form those tornadoes and water-spouts frequently met with, and seen near and over the stream; and as the vapour from a cup of tea in a warm room and the breath of an animal in the same room, are hardly visible, but become sensible immediately when out in the cold air, so the vapour from the gulph stream, in warm latitudes is scarcely visible, but when it comes into the cool air from Newfoundland, it is condensed into the fogs, for which those parts are so remarkable.

The power of wind to raise water above its common level in the sea is known to us in America, by the high tides occasioned in our sea-ports when a strong north-easter blows against the gulph stream.

The conclusion from those remarks is, that a vessel from Europe to North America may shorten her passage by avoiding to stem the stream, in which the thermometer will be very useful; and a vessel from America to Europe may do the same by the same means of keeping in it. It may have often happened accidentally, that voyages have been shortened by these circumstances. It is well to have the command of them.

But may there not be another cause, independent of winds and currents, why passages are generally shorter from America to Europe than from Europe to America? This question I formerly considered in the following short paper.

On board the Pennsylvania Packet, Captain Osborne.

At Sea, April 3, 1772.

"SUPPOSE a ship to make a voyage eastward from a place in lat. 40° north, to a place in lat. 50° north, distance in longitude 75 degrees.

"In sailing from 40 to 50, she goes from a place where a degree of longitude is about eight miles greater than in the place she is going to. A degree is equal to four minutes of time; consequently the ship in the harbour leaves, partaking of the diurnal motion of the earth, moves two miles in a minute faster than when in the port she is to; which is 120 miles in an hour.

"This motion in a ship and cargo is of great force; and if she could be lifted up suddenly from the harbour in which she lay quiet, and set down instantly in the latitude of the port she was bound to, though in a calm, that force contained in her would make her run a great way at a prodigious rate. This force must be lost gradually in her voyage, by gradual in-

pulse against the water, and probably thence shorten the voyage. Query, In returning does the contrary happen, and is her return thereby retarded and lengthened?*

It is not a more secure method of planking ships, if, instead of thick single planks laid horizontally, we were to use planks of half the thickness, and lay them double and across each other as in figure 23†. To me it seems the difference of expense would not be considerable, and that the ship would be both tighter and stronger.

The securing of the ship is not only a necessary thing; securing the health of the sailors, a brave and valuable order of men, is of great importance. With this view the methods so successfully practised by captain Cook in his long voyages cannot be too closely studied or carefully imitated. A full account of those methods is found in sir John Pringle's speech, when the medal of the Royal Society was given to that illustrious navigator. I am glad to see in his last voyage that he found the means effectual which I had proposed for preserving flour, bread, &c. from moisture and damage. They were found dry and good after being at sea four years. The method is described in my printed works, page 452, fifth edition. In the same, page 470, ‡ is proposed a means of allaying thirst in cases of want of fresh water. This has since been practised in two instances with success. Happily if hunger, when the other provisions are consumed, could be relieved in the same manner; and perhaps in time this may be found not impossible. An addition might be made to their present vegetable provision, by drying various roots in slices by the means of an oven. The sweet potatoe of America and Spain is excellent for this purpose. Other potatoes, with carrots, parsnips, and turnips, might be prepared and preserved in the same manner.

With regard to make-shifts in cases of necessity, seamen are generally very ingenious themselves. They will excuse, however, the mention of two or three. If they happen in any circumstance, such as after shipwreck, taking to their boat, or the like, a compass, a fine sewing-needle laid clear water in a cup will generally point to the north, most of them being a little magnetical, or may be made so by being strongly rubbed or hammered, lying in a north and south direction. If their needle is too heavy to float by itself, it may be supported by little pieces of cork or wood. A man who can swim, may be aided in a long traverse by his handkerchief formed into a kite, by two cross sticks extending to the four corners, which, being raised in the air when the wind is fair and fresh,

* Since this paper was read at the Society, an ingenious member, Mr. Gouveneur, has proposed that the returning voyage would not, from this cause, be retarded.

† See the Paper referred to in this volume, page 368.

will tow him along while lying on his back. Where force is wanted to move a heavy body, and there are but few hands and no machines, a long and strong rope may make a powerful means. Suppose a boat is to be drawn up on a beach, that she may be out of the surf; a stake drove into the beach where you would have the boat drawn, and another to fasten the end of the rope to, which comes from the boat, and then applying what force you have to pull upon the middle of the rope at right angles with it, the power will be augmented in proportion to the length of rope between the posts. The rope being fastened to the stake A, drawn upon in the direction C D, will slide over the stake B; and when the rope is bent to the angle A D B, represented by the prick'd line in figure 24, the boat will be at B.

Some sailors, the writer has given unnecessary trouble in pretending to advise them; for they have a little reason, the advice of landmen, whom they ignorant and incapable of giving any worth notice; though it is certain that some of their instruments were the invention of landmen. At least the first vessel ever made to go on the water was certainly such. I will therefore add only a few words more, and they shall be addressed to passengers.

When you intend a long voyage, you may do well to keep your intention as much as possible a secret, or at least the time of your departure; otherwise you will be continually interrupted in your preparations by the visits of friends and acquaintance, who will not only rob you of the time you want, but put things out of your mind, so that when you come to sea, you have the mortification to recollect points of business that ought to have been done, which you intended to settle, and conveniences you had proposed to bring with you, &c. all which have been omitted through the effect of those officious friendly visits. Would it not be well if this custom could be changed; if the voyager after having, without interruption, made all his preparations, should use some of the time he has left, in going himself, to leave of his friends at their own houses, and let them come to congratulate him on his happy return.

Some are always in your power, make a choice in your captain, though much of your comfort in the passage may depend on his personal character, as you must for so long a time be joined to his company, and under his direction; if he is a sensible, sociable, good natured, obliging man, you will be so much happier. Such there are; but if he happens to be otherwise, and is only skillful, careful, watchful, and active in the conduct of his ship, excuse the rest, for these are the essentials.

Whatever right you may have by agree-

ment in the room of stores laid in by him for the passengers, it is good to have some particular things in your own possession, so as to be always at your own command.

1. Good water, that of the ship being often bad. You can be sure of having it good only by bottling it in a clear spring well and in clean bottles. 2. Good tea. 3. Good ground. 4. Chocolate. 5. Wine of the sort you particularly like, as cyder. 6. Lemons. 7. Almonds. 8. Sugar. 9. Capillaire. 10. Jamaica spirits. 11. Diet bread. 12. Soup. 13. As to fowls, is not worth while to have any called yours, unless you have the feeding and managing of them according to your own judgment under your own eye. As they are generally treated present in ships, they are for the most part sick, and their tough and whit-leather. All have an opinion, broached I supposed first prudently, of saving of water when short, that fowls do not know when they have enough, and will kill themselves if you give them too much, so they are served with a little only in two days. This poured into troughs that lie sloping, and therefore immediately runs down to the lower end. There the fowls ride upon another's backs to get at it, and some are happy enough to reach and once dip their beaks in it. Thus tantalized, and tormented with thirst, they cannot digest their dry food, they fret, pine, sicken, and die. Some found dead, and thrown overboard every morning, and those killed for the table are not eatable. Their troughs should be in little divisions, each cup, to hold the water separately, figure 25. But this is never done. The sheep and hogs are therefore your best dependence for fresh meat at sea, the being generally tolerable, the pork callent.

It is possible your captain may have provided so well in the general stores, as to render some of the particulars above recommended of little or no use to you. But there are frequently in the ship poorer passengers, who are taken at a lower price, lodge in the storeroom, have no claim to any of the cabin provisions, or to any but those kinds that are allowed the sailors. These people are sometimes dejected, sometimes sick, there may be children among them. In a situation where there is no going to market, to purchase such necessities, a few of these your superfluities distributed occasionally may be of great service, restore health, life, make you happy, and thereby give you infinite pleasure.

The worst thing in ordinary merchant ships is the cookery. They have no professional cook, and the worst hand as a seaman is appointed to that office, in which he is not only

very ignorant but very dirty. The have therefore fir a saying, *that God sends meat and the devil cooks*. Passengers more piously disposed, and willing to believe Heaven orders all things for the best, may suppose, that, knowing the sea-air and constant exercise by the motion of the would give extraordinary appetites, bad cooks were kindly sent to prevent our eating too much; or that, foreseeing we should have bad cooks, good appetites were furnished to prevent our starving. If you cannot trust to circumstances, a spirit-lamp, with a blaze-pan, enable you to cook some little things for yourself; such as a hash, a soup, &c. And it might be well have among your stores some potted meats, which if well put keep long good. A small tin oven, to place with the open side before the fire, may be another good utensil in which your own servant may roast for you a bit of pork or mutton. You will sometimes be induced to eat of the ship's salt beef, as it is often good. You will find cider the best quencher of that thirst which salt meat or fish occasions. The ship biscuit is hard for of teeth. It may be softened by toasting. But rusk is better; for being made of good fermented bread, sliced and baked a second time, the pieces imbibe the water easily, soften immediately, digest more kindly, and are therefore more wholesome than the unfermented biscuit. By the way, rusk is the true original biscuit, so prepared to keep for sea, *biscuit* in French signifying twice baked. If your dry peas boil hard, a two-pound iron shot put with them into the pot, will by the motion of the ship grind them as fine as mustard.

These accidents I have seen at sea with large dishes of soup upon a table, from the motion of the ship, have made me wish, that our pot- or pewterers would make soup dishes in divisions, like a set of small bowls united together, each containing about sufficient for one person, in some such form as fig. 26; for when the ship should make a sudden heel, the soup would not in a body flow over one side, and fall into people's laps and scald them, as is sometimes the case, but would be retained in the separate divisions, as in figure .

After these trifles, permit the addition of a few general reflections. Navigation, when employed in supplying necessary provisions to a country in want, and thereby preventing famines, which were more frequent and destructive the invention of that art, is undoubtedly a blessing mankind. employed merely in transporting superfluities, is a question whether the advantage of the employment it affords is equal to the mischief of so many lives on the ocean. But when employed in pillaging and

transporting slaves, it is clearly the means of augmenting the mass of human misery. It is amazing think of ships and lives risked in fetching tea from China, coffee from Arabia, sugar and tobacco from America, all which our ancestors did well without. Sugar employs near one thousand ships, tobacco almost as many. For the utility of tobacco there is little to be said; and for that of sugar, how much more commendable would it be if we could give the few gratification afforded once or twice a day by the taste of sugar in our tea, rather than encourage the cruelties exercised in producing it. An eminent French says, that when he considers the wars we excite Africa to obtain slaves, the numbers necessarily slain in those wars, the many prisoners who perish at sea by sickness, bad provisions, foul &c. in transportation, and how many afterwards die from the hardships of slavery, cannot look on a piece of sugar without conceiving it stained with spots of human blood. Had he added the consideration of the wars we make to take and retake the sugar islands one another, and the fleets armies that perish in those expeditions, he might have seen his sugar not merely spotted, but thoroughly dyed scarlet in grain. It is in these wars that make the maritime powers of Europe, the inhabitants of London and Paris, pay dearer for sugar than those of Vienna, a thousand miles from the sea; because their sugar costs not only the price they pay for it by the pound, but all they pay in to maintain the fleets and armies that fight for it.—With great esteem, I am, sir, your most obedient humble servant, B. FRANKLIN.

On the Gulf Stream.

Remarks upon the Navigation from Newfoundland to New York, in order to avoid the Gulf Stream on one hand, and on the other the Shoals that lie to the Southward of Nantucket and of St. George's Banks.

AFTER you have passed the banks of Newfoundland in about the 44th degree of latitude, you will nothing, till you draw near the Isle of Sables, which we commonly pass in latitude Southward of this isle, the current is found extend itself as far north as 41° 30' or 30', then it turns towards the E. S. E. or S. E. $\frac{1}{4}$ E.

Having passed the Isle of Sables, shape your course for the St. George's Banks, so as to pass them in 40°, because the current southward of those banks reaches as far north as 39°. The shoals of those banks lie in 41° 35'.

After having passed St. George's Banks, you must, to clear Nantucket, form your course so as to pass between the latitudes 38° 30' and 40° 45'.

The most southerly part of the shoals of Nantucket lie in about $40^{\circ} 45'$. The northern part of the current, directly to the south of Nantucket, is felt in about latitude $39^{\circ} 30'$.

By observing these directions, and keeping between the stream and the shoals, the passage from the Banks of Newfoundland to New York, Delaware, or Virginia, may be considerably shortened; for so you will have the advantage of the eddy current, which moves contrary to the Gulf Stream. Whereas if to avoid the shoals you keep too far to the southward, and get into that stream, you will be retarded by it at the rate of 60 or 70 miles a day.

The Nantucket whale-men being extremely well acquainted with the Gulf Stream, its course, strength, and extent, by their constant

practice of whaling on the edges of it, from their island quite down to the Bahamas, this draft of that stream was obtained from one of them, captain Folger, and caused to be engraved on the old chart in London, for the benefit of navigators, by R. FRANKLIN.

Note. The Nantucket captains who are acquainted with this stream, make their voyages from England to Boston in as short a time generally as others take in going from Boston to England, viz. from twenty to thirty days.

A stranger may know when he is in the Gulf Stream, by the warmth of the water, which is much greater than that of the water on each side of it. If then he is bound to the westward, he should cross the stream to get out of it as soon as possible. B. F.

Observations of the Warmth of the Sea-water, &c., by Fahrenheit's Thermometer, in crossing the Gulf Stream; with other remarks made on board the Pennsylvania Packet, captain Osborne, bound from London to Philadelphia, in April and May, 1776.

Date.	Hour.	Temp. of Air.	Temp. of Sea.	Wind.	Course.	Distance.	Latitude N.	Longitude W.	Remarks.
April 10									
11			61						
12			64						
13			63						
14			63						
15		60	70				27 30	60 30	Much gulph weed; saw a whale.
16		60	70				37 13	62 29	Colour of water changed.
17		60	70				37	63	Much gulph weed.
18	8 A.M.	60	70	SW	W b S				Sounded, no bottom.
19	6 P.M.	67	60		W N W	34			Much light in the water last night.
20	8 A.M.	69	71	N		44	27 26	66 0	Water again of the usual deep sea colour, little or no light in it at night.
21	5 P.M.	66	72	N E		57			
22	11 dit.	66	68	N W b N	W b S				
23	8 A.M.	64	70	N E		60			
24	12	68	70		E b S	24	37 20	68 53	Frequent gulph weed, water continues of sea colour, little light.
25	6 P.M.	64	72	E S E	W b N				Much light.
26	10 dit.	65	65	S					light all last night.
27	7 A.M.					60			Colour of water changed.
28	12			N W	W N W	44	38 13	72 23	
29	4 P.M.	64			W b N	21			
30	10 dit.	64	57	S W	W N W	31			Much light.
31	8 A.M.	62	53			18	36 43	74 3	Much light.
32	12	60	53	W S W	N W	18			
33	6 P.M.	64	55	N W	W S W	15			
34	10	65	56	N b W	W b N	10			
35	7 A.M.	68	54				38 30	76 0	

Observations of the warmth of the Sea-Water, &c., by Fahrenheit's Thermometer; with other remarks made on board the *Reynold*, captain Wyck, bound from Philadelphia to France, in October and November, 1778.

Date.	Hour A.	Hour P. M.	Temp. of Air.	Temp. of Water.	Wind.	Course.	Distance.	Lat. North.	Long.	Remarks.
Oct. 31	10		76	70	SSE	E 5 S	125 35	15 70	30	Left the capes Thursday night, 25, 1778.
Nov. 1	10		78	70	WSW	E 1 N	109	No ob.	68 12	
	2		71	70	N		141		66 23	
	4		67	70	NW	ESE 1 E	160 37	0 02	7	Some sparks in the water these two last nights.
	6		70	70		E 5 S	194 36	36 58	8	
	8		68	70		N 5 E				Date.
	10			70		NE	163 35	21 55	1	Date.
	12		68	70						
	2		70	70						
	4		70	70						
	6		70	70						
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A Journal of a Voyage from the Channel between France and England towards America.

Date.	Lat. N.	Long. W.	Therm. A. M.	Therm. P. M.	Wind.	Current.	Distance.	Remarks.
July 31	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
August 1	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
2	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
3	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
4	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
5	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
6	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
7	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
8	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
9	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
10	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
11	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
12	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
13	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
14	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
15	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
16	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
17	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
18	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
19	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
20	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
21	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
22	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
23	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
24	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
25	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
26	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
27	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
28	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
29	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
30	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
31	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
August 1	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
2	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
3	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
4	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
5	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
6	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
7	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
8	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
9	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
10	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
11	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
12	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
13	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
14	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
15	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
16	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
17	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
18	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
19	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
20	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
21	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
22	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
23	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
24	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
25	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
26	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
27	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
28	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
29	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
30	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°
31	49 20	15 40	61	57	W. by N.	W. by N.	174	W. by N. 20°

N. B. Longitude is reckoned from London, and the thermometer is according to Fahrenheit.

OBSERVATIONS.

July 31. At one P. M. the Start bore W N W. distant six leagues.

August 1. The water appears luminous in the

— 2. The temperature of the water is taken at eight in the morning and at eight in the evening.

— 6. The water appears less luminous.

— 7. Formegan SW. dist. 33 $\frac{1}{2}$ deg. St. Mary's SW $\frac{1}{2}$ S. 33 leagues.

— 8. From this date the temperature of the water is taking at eight in the morning and at six in the evening.

August 11. Night, prevents the luminous appearance of the water.

— 11. A strong southerly current.

— 12. Ditto. From this date the temperature of the air and water was ——— at noon, as well as morning and evening.

— 16. Northerly

— 19. First saw gulph weed.

— 21. Southerly current.

— 22. Again saw gulph weed.

— 24. The water appeared luminous in a small degree before the moon rose.

August 29. No moon, yet very little light in the water.

— 30. Much gulph weed to-day.

— 31. Ditto.

September 1. Ditto.

— 2. A little more light in the water.

— 4. No gulph weed to-day. More light in the water.

— 5. Some gulph weed again.

— 6. Little light in the water. A very hard thunder-gust in the night.

— 7. Little gulph weed.

— 8. More light in the water. Little gulph weed.

— 9. Little gulph weed. Little light in the water last evening.

— 10. Saw some beds of rock-weed; and we were surprised to observe the water six degrees colder by the thermometer than the preceding noon.

This day (10th) the thermometer still kept descending, and at five in the morning of the 11th, it was in water as low as 70, when we struck soundings. The same evening the pilot came on board, and we found our ship about five degrees of longitude ahead of the reckoning, which our captain accounted for by supposing our course to have been near the edge of the gulph stream, and thus an eddy current always in our favour. By the distance we ran from Sept. 9, in the evening, till we struck soundings, we must have been at the western edge of the gulph stream, and the change in the temperature of the water was probably owing to our suddenly passing from that current, into the waters of our own climate.

On the 14th of August the following experiment was made. The weather being perfectly calm, an empty bottle, corked very tight, was sent down twenty fathoms, and it was drawn up still empty. It was then sent down thirty-five fathoms, when the weight of the water having forced in the cork, it was drawn up full, the water it contained was immediately tried by the thermometer, and found to be 70, which was six degrees colder than at the surface. The lead and bottle were visible, but not very distinctly so, at the depth of twelve fathoms, but when only seven fathoms deep they were perfectly seen from the ship. This experiment was thus repeated Sept. 11, when we were in soundings of eighteen fathoms. A keg was previously prepared with a valve at each end, one opening inward, the other outward; this was sent to the bottom in expecta-

tion that by the valves being both open when going down, and both shut when coming up, it would keep within it the water received at bottom. The upper valve performed its office well, but the under one did not shut quite close, so that much of the water was lost in hauling it up the ship's side. As the water in the keg's passage upwards could not enter at the top, it was concluded that what water remained in it was of that near the ground, and on trying this by the thermometer, it was found to be at 55, which was twelve degrees colder than at the surface.

This last Journal was obligingly kept for me by Mr. J. Williams, my fellow-passenger in the London Packet, who made all the experiments with great exactness. [The late colonel Williams of the U S Engineers.]

The chart in this edition, was constructed with a view to a more comprehensive idea of the course of the gulph stream. Volney suggests, that the earth deposited by the gulph stream N. E. of Newfoundland, has formed the great banks; and that the accumulation there, has given the stream a new or more easterly direction. The chart also serves to illustrate the long received ideas of the progress of the shoals of fish. May not the glutinous matter seen on the water, and which all persons who have been across the line must have noticed to be immense at night, be another cause of the phenomena of fish shoals. May they not come in search of the food, which the matter seen on the water in such abundance affords? The writer of this note has observed, that on entering the trade winds the sea-men have judged of the change of wind by preaching, by the direction of the boats and other fish, which pass in shoals in the South Atlantic and South eastern seas, in a direct opposition to the wind, and when not opposite to the prevailing wind, they conclude a change to be at hand from the direction towards which the fish go. The appearance of luminous floating matter at night is often followed by shoals of fish, the spawn or gluten, which the writer has had taken up in a bucket, has been often found as large as two inches diameter, and frequently induced an opinion that it was a species of maritime weeds or egg of an animal. An inquiry into the periodical appearances of these numerous substances on voyages to the south ward, and remarks on the usual direction of the shoals of boats and other fish, might perhaps lead to interesting discoveries, it might be assumed as a question worthy of examination, whether the direction of shoals of fish is not towards those points from which periodical winds or currents move the waters, and that the shoals of fish which move from the north pole, by the British isles across the Atlantic, are led by their instincts in search of these periodical supplies of food, and if the deposits so made by the gulph stream on the banks of Newfoundland is not the true cause of the great

To Oliver Noak.

On the Art of Swimming.

I CANNOT be of opinion with you that it is too late in life for you to learn to swim. The river near the bottom of your garden affords a most convenient place for the purpose. And as your employment requires your being often on water, of which you have such a dread, I think you do well to make the trial; nothing being likely to remove those apprehensions as the consciousness of an ability to swim to the shore, in case of an accident, or of supporting yourself in the water till a boat could get you up.

I do not know how far your lungs or bladders may be used in swimming, having never seen any use of them. Possibly they may be of service in supporting the body while you are learning what is called the stroke, or the manner of drawing in and striking out the hands and feet that is necessary to produce progressive motion. But you will be no swimmer till you can place some confidence in the power of the lungs to support you; I would therefore advise the acquiring that confidence in the first place: especially as I have known several who, by a little of the practice necessary for that purpose, have insensibly acquired the stroke, taught it were by nature.

The practice I mean is this. Choosing a place where the water deepens gradually, step coolly into it till it is up to your breast, then turn round, your face to the shore, and throw an egg into the water between you and the shore. It will sink to the bottom, and be easily seen there, as your vision is clear. You must lie in water so deep as that you cannot reach it to take it up but by diving for it. To encourage yourself in order to do this, reflect that your lungs will be from deeper to shallower water, that at any time you may, by bringing your legs under you, and standing on the bottom, raise your head far above the surface. Then plunge under it with your eyes closed, throwing yourself towards the egg, and endeavouring by the action of your hands and feet against the water to get forward within reach of it. In this attempt you will find, that the water buoys you against your inclination; that it is not so easy a thing to sink as you imagined; that you cannot but by active force get down to the egg. Thus you feel the power of the water to support you, and learn to confide in that power; your endeavours to overcome it, till you reach the egg, teach you the manner of acting on the water with your feet and hands, which action is afterwards necessary in swimming to support your head higher above water, or to go through it.

I would the more earnestly press you to the trial of this method, because, though I am

satisfied you that your body is lighter than water, and that you might float in it a long time with your mouth free for breathing, if you would put yourself in a proper posture, and be able to forbear struggling, yet till you have obtained some experimental confidence in the water, I cannot depend on your having the necessary presence of mind to recollect that posture and directions I gave you relating to it. The surprise may put all out of your mind. For though we value ourselves on being reasonable knowing creatures, reason and knowledge seem on such occasions to be of little use; and the brutes to whom we allow scarce a glimmering of either, appear to have the advantage of us.

I will, however, take this opportunity of repeating those particulars to you, which I mentioned in our last conversation, as, by perusing them at your leisure, you may possibly imprint them so in your memory as on occasion to be of some use to you.

1. That though the legs, arms, and head of a human body, being solid parts, are specifically something heavier than water, yet the trunk, particularly the upper part, from its hollowness, is much lighter than water, as that the whole of the body taken together is too light to sink wholly under water, but some part will remain above, until the lungs become filled with water, which happens from drawing water into them instead of air, when a person in the fright attempts breathing while the mouth and nostrils are under water.

2. That the legs and arms are specifically lighter than salt water, and will be supported by it, so that a human body would not sink in salt water, though the lungs were filled as above, but the greater specific gravity of the head.

3. That therefore a person throwing himself on his back in salt water, and extending his arms, may easily lie so as to keep his mouth and nostrils free for breathing; and by a small motion of his hands prevent turning, if he should perceive any tendency to it.

4. That in salt water, if a man throws himself on his back, near the surface, he will not long continue in that situation but by proper action of his hands on the water. If he uses no such action, the legs and lower part of the body will gradually sink till he comes into an upright position, in which he will continue suspended, the hollow of the breast keeping the head uppermost.

5. But if, in this erect position, the head is kept upright above the shoulders, as when we stand on the ground, the immersion will, by the weight of that part of the body which is out of water, reach above the mouth and nostrils, perhaps a little above the eyes, so that a man cannot long remain suspended in this position.

6. The body continuing suspended as be-

fore, and upright, if the head be leaned quite back, so that the face looks upwards, all the back part of the head being then under water, and its weight consequently in a great measure supported by it, the face will remain above water quite free for breathing, will rise an inch higher every inspiration, and sink as much every expiration, never so low that the mouth may be near the mouth.

7. If therefore a person unacquainted with swimming falling accidentally into water, have presence of mind sufficient to avoid struggling and plunging, and to let the body take this natural position, he might continue long enough to drown till perhaps help would come. For as to the clothes, their weight while immersed is very inconsiderable, the water supporting it, though, when he comes out of the water, he would find them very heavy indeed.

But, as I said before, I would not advise you or any one to depend on having this presence of mind on an occasion, but learn fairly to swim; as I wish all men were taught to do in their youth; they would, on many occurrences, be the safer for having that skill, and on many more be happier, and freer from painful apprehensions of danger, to say nothing of the enjoyment is so delightful an exercise. Soldiers particularly should, methinks, all be taught to swim; it might be of frequent use either in surprising an enemy, or saving themselves. And if I had now boys to educate, I should prefer those schools (other things being equal) where an opportunity was afforded for acquiring an advantageous art, which once learned is never forgotten.

B. FRANKLIN.

On the same subject, in *some inquiries of M. Dubourg*.*

—I am apprehensive that to make all the disquisitions on this subject, I must, therefore, content myself with a few remarks.

The specific gravity of some human bodies, in comparison of that of water, has been examined by Mr. Robinson, in the *Philosophical Transactions*, volume 50, page 30, for the year 1757. He asserts, that fat persons with small bones float most easily upon the water.

The diving-bell is accurately described in the *Transactions*.

When I was a boy, I made two oval pallets, about six inches long, and six broad, with a hole for the thumb, in order to retain it fast in the palm of my hand. They much resembled a painter's pallets. In swimming

I pushed the edges of these forward, and I struck the water with their flat surfaces as I drew them back. I remember I swam faster by means of these pallets, but they fatigued my wrists. I also fitted to the soles of my feet a kind of sandals; but I was not satisfied with them, because I observed that the stroke is partly given by the inside of the feet and the ankles, and not entirely with the soles of the feet.

We have here a pair of swimming, made of double sail-cloth, with small pieces of cork quilted in between them.

I know nothing of the *sophandra* of M. de la Chapelle.

I know by experience, that it is a great comfort to a swimmer, who has a considerable distance to go, to turn himself sometimes on his back, and to vary in other respects the means of procuring a progressive motion.

When he is seized with the cramp in the leg, the method of driving it away is to give the parts affected a sudden, vigorous violent shock; which he may do in the air as he swims on his back.

During the great heats of summer there is no danger in bathing, however warm we may be, in rivers which have been thoroughly warmed by the sun, to throw oneself into cold spring water, when the body has been heated by exercise in the sun, is an imprudence which may prove fatal. I once knew an instance of four young men, who, having worked at harvest in the heat of the day, with a view of refreshing themselves, plunged into a spring of cold water: two died upon the spot, a third the next morning, and the fourth recovered with great difficulty. A copious draught of water, in similar circumstances, is frequently attended with the same effect in North America.

The exercise of swimming is one of the most healthy and agreeable in the world. After having swum for an hour in the evening, one sleeps coolly the whole night, during the most ardent heat of summer. Perhaps the pores being cleansed, and insensible perspiration increases and occasions this coolness. It is certain that much swimming is the means of stopping a diarrhoea, and even of producing a constipation. With respect to those who do not know how to swim, or who are affected with a diarrhoea, a season which does not permit them to take that exercise, a bath, by cleansing and purifying the skin, is found very salutary, and often effects a radical cure. I speak from my own experience, frequently repeated, and that of others to whom I have recommended this.

You will not be displeased I conclude these hasty remarks by informing you, that as the ordinary method of swimming is to the of rowing with the arms and legs, and is consequently a laborious and fatiguing

* This and the four following extracts of letters to M. Dubourg, are from the French edition of Dr. Franklin's works.

operation when the space of water to be crossed is considerable; there is a method in which a swimmer may pass to great distances with much facility, by means of a sail. This discovery I fortunately made by accident, and in the following manner.

When I was a boy I amused myself one day with flying a paper kite; and approaching the bank of a pond, which was near a mile broad, I tied the string to a stake, and the kite rose to a very considerable height above the pond, while I was swimming. In a little time, being desirous of amusing myself with my kite, and enjoying at the same time the pleasure of swimming, I returned; and loosing from the stake the string with the little stick which was fastened to it, went again into the water, where I found, that, lying on my back and holding the stick in my hands, I was drawn along the surface of the water in a very agreeable manner. Having then engaged another boy to carry my clothes round the pond, to a place which I pointed out to him on the other side, I began to cross the pond with my kite, which carried me quite over without the least fatigue, and with the greatest pleasure imaginable. I was only obliged occasionally to halt a little in my course, and resist its progress, when it appeared that, by following too quick, I pushed the kite too much; by doing which occasionally I made it rise again. I have never since that time practised this singular mode of swimming, though I think it not impossible to cross in this manner from Dover to Calais. A packet-boat, however, is still preferable.

To M. Dubourg.

On the free Use of Air.

LONDON, July 24, 1779.

—I GREATLY approve the epithet which you give, in your letter of the 8th of June, to the new method of treating the small-pox, which you call the tonic or bracing method; I will take occasion, from it, to mention a practice to which I have accustomed myself. You know the cold bath has long been in vogue here as a tonic; but the shock of the cold water has always appeared to me, generally speaking, as too violent, and I have found it much more agreeable to my constitution to bathe in another element, I mean cold air. With this view I rise almost every morning, and sit in my chamber without any covering whatever, half an hour or an hour, according to the season, either reading or writing. This practice is not in the least painful, but, on the contrary, agreeable; and if I return to bed afterwards, I dress myself, as sometimes happens, I make a supplement to my night's rest of one or two hours of the most pleasing sleep that can be imagined. I find no ill consequences

whatever resulting from it, and that at least it does not injure my health, if it does not in fact contribute much to its preservation. I shall therefore call it for the future a bracing or tonic bath.

B. FRANKLIN.

On the Causes of Colds.

MARCH 10, 1772.

—I SHALL not attempt to explain why damp clothes occasion colds, rather than wet ones, because I doubt the fact; I imagine that neither the one nor the other contributes to the effect, and that the causes of colds are totally independent of wet and even of cold. I propose writing a short paper on this subject, the want of leisure I have at my disposal. In the meantime I can only say, that having some suspicions of the notion, which attributes to cold the property of stopping the pores and obstructing perspiration, was ill-founded, I engaged a young physician, who is making some experiments on Sanctarius's balance, to measure the different proportions of his perspiration, when remaining one hour quite naked, and another warmly clothed. He pursued the experiment in this alternate manner for eight hours successively, and found his perspiration almost double during the hours in which he was naked.

B. FRANKLIN.

To Francis Hopkinson.

On the Vis Inertia of Matter.

PHILADELPHIA, 1748.

ACCORDING to your promise, I send you in writing my observations on your book,* you will be the better able to consider them; which I desire you to do at your leisure, and use right where I am wrong.

I stumble at the threshold of the building, and therefore have not read farther. The author's *vis inertia essential to matter*, upon which the whole work is founded, I have not been able to comprehend. I think he demonstrates at all clearly (at least to me he does not) that there is really such a property in matter.

He says, No. 2. "Let a given body or mass of matter be called *a*, and let any given celerity be called *c*. That celerity doubled, tripled, &c. or halved, thirded, &c. will be 2 *c*, 3 *c*, &c. or $\frac{1}{2}$ *c*, $\frac{1}{3}$ *c*, &c. respectively; also the body doubled, tripled, &c. halved, thirded, will be 2 *a*, 3 *a*, or $\frac{1}{2}$ *a*, $\frac{1}{3}$ *a*, respectively." Thus it is clear.—But he adds, "Now to move a body *a* with the celerity *c*, requires a certain force to be impressed upon it; and to move it with a celerity as 2 *c*, requires twice that force to be impressed upon it, &c."

* Baxter's Enquiry into the Nature of the Human Soul.

I suspect some mistake crept in by the author's not distinguishing between a great force applied at once, or a small one continually applied to a mass of matter, in order to move it. I think it is generally allowed by the philosophers, and, for aught we know, is certainly true, that there is no mass of matter, how great soever, but may be moved by any force how small soever, (taking friction out of the question) and this small force continued, will in time bring the mass to move with any velocity whatsoever.—Our author himself seems to allow this towards the end of the same No. 2, \square subdividing \square celerities \square forces; for as in \square ing the division to eternity by his method of $\frac{1}{2} c, \frac{1}{3} c, \frac{1}{4} c, \&c.$ you can never come to a fraction of velocity that is equal to c , or no celerity at all; so dividing the force in the same manner, you can never come to a fraction of force that will not produce an equal fraction of celerity.—Where then is the mighty *vis inertiae*, and what \square its strength; when the greatest assignable mass of matter will give to, or be moved by the least assignable force? Suppose two globes, equal to \square sun and to one another, exactly equipoised in Jove's balance; suppose no friction \square the centre of motion, in the beam or elsewhere; if a moschetto then were to light on one of them, would he not give motion to them both, causing one to descend and the other to rise? If it is objected, that the force of gravity helps one globe to descend, I answer, the same force opposes the other's rising: here is an equality that leaves the whole motion to be produced by the moschetto: without whom those globes would not be moved at all. What then does *vis inertiae* do in this case? and what other effect could we expect if there were no such thing? Surely if it were any thing more than a phantom, there might be enough of it in such vast bodies, to annihilate so trifling a force by its opposition to motion!

Our author \square have reasoned more clearly, I think, if, as he has used the letter e for a certain quantity of matter, and c for a certain quantity of celerity, he had employed one letter more, and put f perhaps, for a certain quantity of force. This let us suppose to be done; and then as \square is a maxim that the force of bodies in motion is equal to the quantity of \square multiplied by the celerity, (or $f=c \times e$;) and as the force received by and subsisting in matter, when it is put in motion, can never exceed the force given; so if f moves e with c , there must needs be required $\square f$ to move e with $3c$; for e moving with $2c$ would have a force equal to $2f$, which \square could not receive from $1f$; and this, not because there is such a thing as *vis inertiae*, for the case would be the same \square that had no existence; but because nothing can give more than \square has, if $1f$ can to $1e$ give $1c$, which

is the same thing as giving it $1f$; (i. e. if force applied to matter \square rest, can put it in motion, and give it equal force) where \square *vis inertiae*? If it existed at all in \square should we not find the quantity of its resistance subtracted from the force given?

\square No. 4. our author goes on and says, "this body e requires a certain force to be impressed on it to be moved \square a celerity as c , or such a force is necessary; and therefore makes a certain resistance, $\&c.$ A body as $2e$ requires twice that force to be moved with \square same celerity, or \square makes twice that resistance; and so on.—This I think is not true; but that the body $2e$ moved by the force $1f$ (though the eye may judge otherwise of it) does really move with the same celerity as it did when impelled by the same force; for $2e$ is compounded of $1e \times 1e$: and if each of the $1e$'s or each part of the compound were made to move with $1c$ (as they might be by $2f$) then the whole would move with $2c$, and not with $1c$, as our author supposes. \square $1f$ applied to $2e$, makes each e move with $\frac{1}{2}c$; and so the whole moves with $1c$; exactly the same as $1e$ was made to do by $\square f$ before.

\square is equal celerity but a measuring the same space by moving bodies in \square time?—Now if $1e$ impelled by $1f$ measures 100 yards in a minute; and in $2e$ impelled by $1f$, each e measures 50 yards in a minute, which \square make 100; are not the celerities as the forces equal? and since force \square celerity in the same quantity of \square are always in proportion to each other, why should we, when the quantity of matter is doubled, allow the force to continue unimpaired, and yet suppose one half of the celerity to be lost?—I wonder the more at our author's mistake in this point, since in the same number I find him observing: "We may easily conceive that a body as $3e, 4e, \&c.$, would make 3 or 4 bodies equal to once e , each of which would require once the first force to be moved with the celerity c ." \square then in $3e, \&c.$ e requires once the first force f to be moved with the celerity, c , would not each move with the force f and celerity c ; and consequently the whole be $3e$ moving with $3f$ and $3c$? After so distinct an observation, how could \square miss of the consequences, and imagine that $1c$ and $3c$ were the same? Thus as our author's statement of celerity in the case of $2e$ moved by $1f$ is imaginary, so must be his additional resistance.—And here again, I am \square a loss to discover any effect of the *vis inertiae*.

In No. 6, he tells us, that all \square likewise certain when taken the contrary \square , viz. from motion to rest; for the body e moving with a certain velocity, as c , requires a certain degree of force or resistance to stop that motion, $\&c.$ that is, in \square words, equal force \square necessary to destroy \square . It may

be so. But how does this discover a *vis inertia*? Would not the effect be the same if there were no such thing? A force $1f$ strikes a body $1a$, and moves it with the celerity $1c$, i. e. with the force $1f$: it requires, even according to our author, only an opposing $1f$ to stop it. But ought it not (if there were a *vis inertia*) to have not only the force $1f$, but an additional force equal to the force of *vis inertia*, that obstinate power by which a body endeavours with all its might to continue in its present state, whether of motion or rest? I say, ought there not to be an opposing force equal to the sum of these?—The truth however is, that there is no body, how large soever, moving with any velocity, how great soever, but may be stopped by any opposing force, how small soever, continually applied. At least all our modern philosophers agree to tell us so.

Let me turn the thing in what light I please. I cannot discover the *vis inertia*, nor any effect of it. It is allowed by all, that a body $1a$ moving with a velocity $1c$, and a force $1f$ striking another body $1a$ at rest, they will afterwards move on together, each with $\frac{1}{2}c$ and $\frac{1}{2}f$; which, as I said before, is equal in the whole to $1c$ and $1f$. If *vis inertia*, as in this case, neither abates the force nor the velocity of bodies, what does it, or how does it discover itself?

I imagine I may venture to conclude my observations on this piece, almost in the words of the author; that if the doctrines of immateriality of the soul and the existence of God and of divine providence are demonstrable from no plainer principles, the *deist* [i. e. *theist*] has a desperate cause in hand. I oppose my *theist* to his *atheist*, because I think they are diametrically opposite; and not near of kin, as Mr. Whitfield seems to suppose; where (in his journal) he tells us, “*B. was a deist, I had almost said an atheist; that is chalk, I had almost said charcoal.*”

The din of the market* increases upon me; and with frequent interruptions, has, I find, made my ~~own~~ things twice over; and, I suppose, forget some others I intended to say. It has, however, one good effect, as it obliges me to come to the relief of your patience with

FRANKLIN.

To Dr. John Pringle.

On the different Strata of the Earth.

CHAMBERLAIN, Jan. 6, 1788.

I RETURN you Mr. Mitchell's paper on the strata of the earth with thanks. The reading of it, and perusal of the draft that accom-

panied it, were made at Market-street, on the North side, between 4th & 5th streets, on the east corner of an alley, where the first metal conductor still remains.

The paper of Mr. Mitchell, here referred to, was published afterwards in the Philosophical Transactions of London.

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papers it, have reconciled me to those convulsions which all naturalists agree this globe has undergone. The strata of clay, gravel, marble, coals, lime-stone, sand, minerals, &c. continued to lie level, one under the other, as they may be supposed to have done before those convulsions, we should have had only a few of the uppermost of the strata, the others lying too deep and too difficult to be come at; but the shell of the earth being broke, and the fragments thrown into an oblique position, the disordered ends of a great number of strata of different kinds are brought up to-day, and a great variety of useful materials put into our power, which would otherwise have remained eternally concealed from us. So that what has been usually looked upon as a ruin suffered by this part of the universe, was, in reality, only a preparation, or means of rendering the earth more fit for use, more capable of being to mankind a convenient and comfortable habitation.

B. FRANKLIN.

To the Abbé Soulavie.*

Theory of the Earth.—Read in the American Philosophical Society, November 21, 1788.

PART, September 11, 1788.

I RETURN the papers with some corrections. I did not see coal mines under the calcareous rock in Derbyshire. I only remarked, at the lowest part of that rocky mountain which was in sight, they were oyster mixed in the stone; and part of the high country of Derby being probably as much above the level of the sea, as the coal mines of Whitehaven were below it, it seemed a proof, that there had been a great bouleversement in the surface of that island, some part of it having been depressed under the sea, and other parts, which had been under it, being raised above it. Such changes in the superficial parts of the globe, seemed to me unlikely to happen, if the earth were solid to the centre. I therefore imagined, that the internal parts might be a fluid more dense, and of greater specific gravity than any of the solids we are acquainted with, which therefore might swim in or upon that fluid. Thus the surface of the globe would be a shell, capable of being broken and disordered by the violent movements of the fluid on which it rested. As air has been compressed by air so as to be twice as dense as water, in which case, if such air and water could be contained in a strong glass vessel, the air would be seen to take the lowest place, and the water to float above and upon it; and as we know not yet the degree of density to which air may be compressed,

* Occasioned by his sending me some words he had taken of what I had said to him in conversation on the Theory of the Earth. I wrote to set him right in some point where he had mistaken my meaning. B. F.

and M. Amontons calculated, that its density increasing as it approached the centre, in the same proportion as above the surface, it would at the depth of — leagues, be heavier than gold; possibly the dense fluid occupying the internal parts of the globe might be air compressed. And as the force of expansion in dense air when heated, is in proportion to its density, this central air might afford another agent to move the surface, as well as be of use in keeping alive the subterraneous fires; though, as you observe, the sudden rarefaction of water coming into contact without those fires, may also be an agent sufficiently strong for that purpose, when acting between the incumbent earth and the fluid on which it rests.

If one might indulge imagination in supposing how such a globe was formed, I should conceive, that all the elements in separate particles being originally mixed in confusion, and occupying a great space, they would (as soon as the almighty fiat ordained gravity, or the mutual attraction of certain parts, and the mutual repulsion of others, to exist) all move to their common centre: that the air being a fluid whose parts repel each other, though drawn to the common centre by their gravity would be densest towards the centre, and rarer as more remote; consequently all matters lighter than the central parts of that air and immersed in it, would recede from the centre, and rise till they arrived at that region of the air which was of the same specific gravity with themselves, where they would rest; while other matter, mixed with the lighter air, would descend, and the two meeting would form the shell of the first earth, leaving the upper atmosphere nearly clear. The original movement of the parts towards their common centre would naturally form a whirl there; which would continue upon the turning of the new-formed globe upon its axis, and the greatest diameter of the shell would be in its equator. If by any accident afterwards the axis should be changed, the dense internal fluid, by altering its form, must burst the shell and throw all its substance into the confusion in which we find it. I will not trouble you with present notions or fancies concerning the manner of forming the rest of our system.—Superior beings smile at our theories, and at our presumption in making them. I will just mention, that your observations on the ferruginous nature of the lava which is thrown out from the depths of our volcanoes, gave me great pleasure. It has long been a supposition of mine, that the iron contained in the surface of the globe has made it capable of becoming as it is, a great magnet; that the fluid of magnetism perhaps exists in all space; so that there is a magnetical north and south of the universe, as well as of this globe, and that if it were possible for a man to fly from star to

star, he might govern his course by the compass; that it was by the power of this general magnetism this globe became a particular magnet. In soft or hot iron the fluid of magnetism is naturally diffused equally; when within the influence of the magnet it is drawn to one end of the iron, made denser there and rarer at the other. While the iron continues soft and hot, it is only a temporary magnet; if it cools or grows hard in that situation, it becomes a permanent one, the magnetic fluid not easily resuming its equilibrium. Perhaps it may be owing to the permanent magnetism of this globe, which it had not at first, that its axis is at present kept parallel to itself, and not liable to the changes it formerly suffered, which occasioned the rupture of its shell, the submersions and emersions of its lands, and the confusion of its seasons. The present polar and equatorial diameters differing from each other near ten leagues, it is easy to conceive, in case some power should shift the axis gradually, and place it in the present equator, and make the new equator pass through the present poles, what a sinking of the waters would happen in the present equatorial regions, and what a rising in the present polar regions; so that vast tracts would be discovered, that now are under water, and others covered, that are now dry, the water rising and sinking in the different extremes near five leagues. Such an operation as this possibly occasioned much of Europe, and among the rest this mountain of Parnassus on which I live, and which is composed of limestone, rock and sea-shells, to be abandoned by the sea, and to change its ancient climate, which seems to have been a hot one. The globe being now become a perfect magnet, we are, perhaps, safe from any change of its axis.—But we are still subject to the accidents on the surface, which are occasioned by a wave in the internal ponderous fluid; and such a wave is producible by the sudden violent explosion you mention, happening from the junction of water and fire under the earth, which not only lifts the incumbent earth that is over the explosion, but impressing with the same force the fluid under it, creates a wave, that may run a thousand leagues, lifting, and thereby shaking, successively, all the countries under which it passes. I know not, whether I have expressed myself as clearly, as I get out of your sight in these reveries. If they occasion any new inquiries, and produce a new hypothesis, they will be quite useless. You see I have given a loose to imagination; but I approve much more your method of philosophizing, which proceeds upon actual observation, makes a collection of facts, and concludes no farther than those facts will warrant. In my present circumstances, that mode of studying the nature of

the globe is out of my power, and therefore I have permitted myself to wander a little in the wilds of fancy. With great esteem,

R. BRANTON.

P. S. I have heard, that chemists can by their art decompose stone and wood, extracting a considerable quantity of water from the one, and air from the other. It seems natural to conclude from this, that water and air were ingredients in their original composition; for man cannot make new matter of any kind.— In the same manner may we not suppose, that when we consume combustibles of all kinds, and produce heat or light, we do not create heat or light; but only decompose a substance, which received it originally as a part of its composition? It may be thus considered as originally in a fluid state; but attracted by organized bodies in their growth, becomes a part of the solid. Besides this, I can conceive, that in the first assemblage of the particles of which this earth is composed, each brought its portion of the loose heat that had been connected with it, and the whole, when pressed together, produced the internal fire that still subsists.

To David Rittenhouse.

New and curious Theory of Light and Heat.—
In the American Philosophical Society,
November 20, 1788.

UNIVERSAL. As we know of it, seems to be filled with a subtle fluid, whose motion, or vibration, is called light.

This fluid may possibly be the same with that, which being attracted by, and entering into other more solid matter, dilates the substance by separating the constituent particles, and so rendering some solids fluid, and maintaining the fluidity of others; of which fluid, when our bodies are totally deprived, they are said to be frozen; when they have a proper quantity, they are in health, and fit to perform all their functions; it is then called natural heat; when too much, it is called fever; and when forced into the body in too great a quantity from without, it gives pain, by separating and destroying the flesh, and is then called burning, and the fluid so entering and acting is called fire.

While organized bodies, animal or vegetable, are augmenting in growth, or are supplying their continual waste, is not this done by attracting and consolidating this fluid called fire, so as to form of it a part of their substance? And is it not a separation of parts of such substance, which, dissolving its solid state, sets that part at liberty, when it again makes its appearance as fire?

For the power of man relative to matter, seems limited to the separating or mixing the various kinds of it, or changing its form and by different compositions of it;

but does not extend to the making or creating new matter; or annihilating the old. Thus, if fire be an original element or kind of matter, its quantity is fixed and permanent in the universe. We cannot destroy any part of it, or make addition to it; we can only separate it from that which confines it, and so set it at liberty; as, when we put wood in a situation to be burnt, or transfer it from one solid to another, as when we make lime by burning stone, a part of the fire dislodged in the fuel being left in the stone. May not this fluid, when at liberty, be capable of penetrating and entering into all bodies, organized or not, quitting easily in totality those not organized, quitting easily in part those which are; the part assumed being fixed remaining till the body is dissolved?

Is it not this fluid that keeps asunder the particles of air, permitting them to approach, or separating them, in proportion to its quantity is diminished or augmented?

Is the greater gravity of particles of air, which forces the particles of this fluid to mix with the matters to which it is attached, as smoke or vapour?

Does it not seem to have a greater affinity with water, since it will quit it to unite with that fluid, and go off with it in vapour, leaving the cold to the touch, and the degree measurable by the thermometer?

The vapour of this fluid, but at a certain height they separate, and the vapour descends in rain, retaining but little of it, in snow or hail less. What becomes of that fluid? Does it rise above our atmosphere, and mix with the universal mass of the kind?

Or does a spherical stratum of it, denser, less mixed with air, attracted by this globe, and repelled or pushed up only to a certain height from its surface, by the greater weight of air, remain there surrounding the globe, and proceeding with it round the sun?

In such case, as there may be a continuity or communication of this fluid through the air quite down to the earth, is it not by the vibrations given it, by the sun, that light appears to us? And may it not be, that every one of the infinitely small vibrations, striking common matter with a certain force, enters its substance, is held there by attraction, and augmented by succeeding vibrations, till the matter has received as much as their force can drive into it?

Is it not thus, that the surface of this globe is continually heated by such repeated vibrations in the day, and cooled by the escape of the heat when those vibrations are discontinued in the night, or intercepted and reflected by clouds?

Is it thus, that the various kinds of combustible bodies?

Perhaps, when this globe was first formed, and its original particles took their place at certain distances from the centre, in proportion to their greater or less gravity, the fluid fire, attracted towards that centre, might in great part be obliged, as lightest, to take place above the rest, and thus form the sphere of fire above supposed, which would afterwards be continually diminishing by the substance it afforded to organized bodies, and the quantity restore it again, by the burning or other separating of the parts of those bodies.

Is not the natural heat of animals thus produced, by separating in digestion the parts of food, and setting their liberty?

Is it not this sphere of fire which keeps the wandering globes that sometimes pass through it in our round the sun, have their surface by it, and burst when their included greatly rarefied by the heat on their burning surfaces?

May it not have been from such considerations that the ancient philosophers supposed a sphere of fire to exist above the air of our atmosphere?

B. FRANKLIN.

To Mr. Bowdoin.

Queries and Conjectures relating to Magnetism and the Theory of the Earth.—Read the American Philosophical Society, January 16, 1780.

I thank you for your favours by Messrs. Gore, Hilliard, and Lee, with whose conversation I was much pleased, and wished for more of it; but their stay with us was too short. Whenever you recommend any of your friends to me, you oblige me.

I want to know whether your Philosophical Society received the second volume of our Transactions. I sent it, but heard of its arriving. I miscarried, I will send another. Has your Society among its books the French work *Sur les Arts, et les Meters*? It is voluminous, well executed, and may be useful in our country. I have bequeathed it them in my will; but they have it already, I will something else.

Our ancient correspondence used to have something philosophical in it. As you are now more free from public care, and I expect to be so in a few months, why may we not have that kind of correspondence? Our much regretted friend Winthrop once made me the compliment, that I was good at starting game for philosophers, let me try if I can start a little for you.

Has the question, how came the earth by its magnetism, ever been considered?

Is it likely that iron ore immediately existed when this globe was first formed; or may it not rather be supposed a gradual production of time?

If the earth is at present magnetical, in

virtue of the masses of iron ore contained in it, might not some ages pass before it had magnetic polarity?

Since iron ore may exist without that polarity, and by being placed in certain circumstances may obtain it, from an external cause, is it not possible that the earth received its magnetism from some external cause?

In short, may not a magnetic power exist throughout our system, perhaps through all systems, so that if men could make a voyage in the starry regions, a compass might be of use? And may not such universal magnetism, with its uniform direction, be serviceable in keeping the diurnal revolution of a planet more steady to the same axis?

Lastly, as the poles of magnets may be changed by the presence of stronger magnets, might not, in ancient times, the near passing of some large mass of greater magnetic power than this globe of ours have been a means of changing its poles, and thereby warring and deranging its surface, placing in different regions the effect of centrifugal force, so as to raise the waters of the sea in some, while they were depressed in others?

Let me add another question or two, not relating indeed to magnetism, but, however, to the theory of the earth.

Is not the finding of great quantities of bones and bones of animals (natural to the climates) the cold ones of our present world, some proof that its poles have been changed? Is not the supposition that the poles have been changed, the easiest way of accounting for the deluge, by getting rid of the difficulty how to dispose of its waters after it was over? Since if the poles were again to be changed, and placed in the present equator, the sea would fall there about 1000 miles in height, and rise as much in the present polar regions; and the effect would be proportionable if the new poles were placed any where between the present and the equator.

Does not the apparent wreck of the surface of this globe, thrown up into long ridges of mountains, with various positions, make it probable, that the internal mass is a fluid; but a fluid so dense as to float the heaviest of its substances? Do we know the limit of condensation air is capable of? Supposing it to grow denser within the surface, in some proportion nearly as it does without, what depth may it be equal in density with gold?

Can we easily conceive how the strata of the earth could have been so deranged, if it had not been a mere shell supported by a heavier fluid? Would not such a supposed internal fluid globe immediately sensible to change in the direction of the earth's axis, alter its form, and thereby burst the shell, and throw up parts of it above the rest? As if we would alter the position of the fluid contained

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in the shell of an egg, and place its longest diameter where the shortest now is, the shell break; but the whole internal substance were as solid and hard as the shell.

Might not a wave, by any means raised in this supposed internal ocean of extremely fluid, raise in some degree, as it passes, the present shell of incumbent earth, and it in some places, as in earthquakes? And may the progress of such wave, and the disorders it produces, the rumbling sound being first heard at a distance, augmenting as it approaches, and gradually dying as it proceeds? A circumstance observed by the inhabitants of America in their last great earthquake, coming in a place, some degrees north of Lima, and being traced by inquiry quite down to Buenos Ayres, proceeded regularly north or south at the rate of leagues per minute, as I is by a very ingenious Peruvian whom with Paris. FRANKLIN.

To M. Dubourg.

On the Nature of Sea Coal.

I AM persuaded, as well as you, that the sea coal has a vegetable origin, and that it has been formed near the surface of the earth; but in preceding convulsions of the earth served to bring it very deep in many places, and covered it in many different strata, we are indebted to subsequent convulsions for having brought within our view the remains of its veins, so as to lead us to penetrate the earth in search of it. I visited last summer a large coal mine at Whitehaven, in Cumberland; and in following the vein and descending by degrees towards the bottom, I penetrated below the ocean, where the level of its surface was more than eight hundred fathoms above my head, and the miners assured me, that their works extended miles beyond the place where I was continually and gradually descending under the sea. The slate, which forms the roof of the coal mine, is impressed in many places with the figures of leaves and branches of fern, which undoubtedly grew at the surface when the slate was in the state of sand on the banks of the sea. Thus it appears that this vein of coal has suffered prodigious

FRANKLIN.

Dr. Perkins to Dr. Franklin.

Respecting the number of deaths in Philadelphia by inoculation.

BOSTON, August 3, 1792.

SIR,—This comes to you on account of Dr. Douglass: he desired me to write to you for what you know of the number that died of the inoculation in Philadelphia, telling me he de-

sired to write something on the small-pox shortly. We shall both be obliged to you for a word on this affair.

The chief particulars of our visitation, you have in the public prints. But the less degree of mortality than usual in the common way of infection, seems chiefly owing to the purging method designed to prevent the secondary fever; a sixth, but had we been experienced in this way, at the first method first begun and carried on in this town, and with success beyond expectation. We lost one in eleven, one coming of the distemper, probably the proportion had been but one in thirteen or fourteen. In the year 1780 we lost nine, which is a favourable ever before with us. The distemper pretty much the same then as now, but some circumstances not so the same time.

If there be any particulars which you want to know, please to signify they are, and I shall send them.

The number of our poor decreases. On a strict inquiry, the number of poor find but fourteen thousand hundred and ninety whiter, and thousand five hundred and forty-four blacks, including those absent on account of the small-pox, many of whom, it is probable, will never return.

I seize this opportunity without any particulars of my old theme. One thing, however, I mention, which is, that my last letters contained something that seemed to militate with your doctrine of the Origin, &c. my design only to relate the phenomena as they appeared to me. I have received so much light and pleasure from your writings, as to prejudice me in favour of every thing from your hand, and leave me only liberty to observe, and a power of dissenting when some great probability might oblige me: and if at any time be the case, you will certainly hear of it.

To Dr. Perkins.

Answer to the preceding.

PHILADELPHIA, Aug. 13, 1792.

I receive your favour of the 3d instant. Some time last winter I procured one of our physicians an account of the number of persons inoculated during the five visitations of the small-pox we have had in twenty-two years, which account I sent to Mr. W. V. of your town, and have no copy. If I remember right, the number exceeded eight hundred, and the deaths were but four. I V. will show you the account, if he ever received it. Those four were all that our doctors allow to have died of the small-pox by inoculation, though I think there were two more of the inoculated who died of the distemper; but the eruptions appearing soon after the operation,

is supposed they had taken the infection before, in the common way.

I shall be glad to see what Dr. Douglass may write on the subject. I have a piece printed at Paris, 1724, entitled, *Observations sur la Saignée Pied, et sur la Purgation au commencement de la Petite Verole*, in which I doubt not I inoculation. A letter of the doctor's is mentioned in it. If he or you have it not, and desire to see it, I will send it.—Please to favour me with the particulars of your purging method, to prevent the secondary fever.

I am indebted for your preceding letter, but business sometimes obliges me to postpone philosophical amusements. Whatever I have wrote of that kind, are really, as they are entitled, but *Conjectures and Suppositions*; which ought always to give place, when careful observation militates against them. I own I have too strong a penchant to the building of hypotheses; they indulge my natural indolence: I wish I was more of your patience and accuracy in making observations, on which, alone, true philosophy can be founded. And, I assure you, nothing can be more obliging to me, than your kind communication of what you make, however they may disagree with my pre-conceived notions.

I am sorry to hear that the number of your decreases, I sometime since, in *Thoughts on the peopling of Countries*,^{*} which, if I can find, I will send you, to obtain your sentiments. The favourable opinion you express of my writings may, you see, give you more trouble than you expected from.

B. FRANKLIN.

To Benjamin Vaughan.

Effects of Lead upon the human Constitution.

PHILADELPHIA, July 31, 1766

I RECOLLECT when I last had the pleasure of seeing you at Southampton, now a twelvemonth since, we had some conversation on the effects of lead taken inwardly; and that at your request I promised to send you in writing a particular account of several facts I then mentioned to you, of which you thought some good use might be made. I am now down to the promise.

The first thing I remember of this kind is a general discourse in which when I was a boy, of a complaint from North Carolina against New England rum, that it poisoned their people, giving them the dry belly-ache, with a loss of the use of their limbs. The distilleries being examined on the occasion, it was found, that several of them used leaden

still-heads and physicians were of opinion, that use of lead. The legislature of Massachusetts thereupon passed an act, prohibiting, under severe penalties, the use of such still-heads and worms thereafter.

In 1724, being in London, I went to work in the printing-house of Mr. Palmer, Bartholomew-close, as a compositor. I there found a practice, I had never seen before, of drying a case of types (which are wet in distribution) by placing it sloping before the fire. I found this the additional advantage, when the types were not only dried but heated, of being comfortable to the working over them in cold weather. I therefore sometimes heated my case when the types did not want drying. An old workman observing it, advised me, telling me I might lose the use of my hands by it, as two of our companions, nearly done, one of whom, that used to earn his guinea a week, could not then make more than ten shillings, and the other, who had the *dangles*, but and sixpence. This, with a kind of obscure pain, that I had felt, as it were, in the bones of my hand when working over the types made very hot, induced me to omit the practice. But talking afterwards with James, a letter-founder in the same close, asking him of the people, who worked over little furnaces of melted metal, were not subject to that disorder; he made light of any danger from the effluvia, but ascribed it to particles of the metal swallowed with their food by slovenly workmen, who went to their meals after handling the metal, without well washing their fingers, of the metalline particles were taken by their bread and with it. This appeared to have some in it. But the pain I had experienced made me still afraid of those effluvia.

Being in Derbyshire some of the furnaces for smelting of lead ore. I told, that the smoke of those furnaces was pernicious to the neighbouring other vegetables; but I do recollect to have heard any thing of the effect of such vegetables eaten by animals. It may be well to make the inquiry.

In America I have often observed, that on the roofs of shingled-houses, where moss is apt to grow in northern exposures, if there be any thing on the roof painted with white lead, such as balusters, or constantly of dormant windows, &c. a streak on shingles from such paint down to the eaves, on which no moss will grow, but the wood remains constantly clean and free from it. We mark rain water that fall on our houses; and if we did, perhaps the small quantity of lead descending from such paint might not be sufficient to pro-

^{*} This letter was published in a work by Dr. John Hunter, on the *Use of the* *Drugs*.

any sensible ill-effect on our bodies. I have been told of a case in Europe, I forget the place, where a whole family was afflicted with what we call the dry belly-ache, or *colica pictorum*, by drinking rain water. It was at a country-seat, which, being situated too high, had no advantage of a well, was supplied with water from a tank, which received the water from the leaded roofs. This had been drank several years without mischief, but some young trees planted near the house growing above the roof, and shedding their leaves upon it, it was supposed, that an acid in those leaves had corroded the lead they covered, and furnished the water that year with its baneful particles and qualities.

When I was in Paris, Mr. John Pringle in 1787, he visited *Charité*, an hospital particularly famous for the cure of that malady, brought thence a pamphlet, containing a list of the names of persons, specifying their professions or trades, who had been cured there. I took the curiosity to examine that list, and found, that all the patients were of trades, that way or other use or work in lead; such as plumbers, glaziers, painters, &c. excepting only *Winds*, stone-cutters, and soldiers. In them, I could not reconcile it to my notion, that lead was the cause of that disorder. But my mentioning it to a physician of that hospital, he informed me, that the stone-cutters are continually using melted lead to fix the ends of iron balustrades in stone; and that the soldiers had been employed by painters as labourers in grinding of colours.

This, my dear friend, is all I can present recollect on the subject. You will see by it, that the opinion of this mischievous effect from lead, is at least above sixty years old; you will observe with common sense how long a useful truth may be known and exist, before it is generally received and practised on. **FRANKLIN.**

To M. Dubourg.

Observations on the prevailing Doctrines of Life and Death.

—Your observations on the nature of death, and the experiments which you propose for recalling to life those who appear to be killed by lightning, demonstrate equally your sagacity and your humanity. It appears, that the doctrines of life and death, in general, are yet but little understood.

A toad buried in sand will live, it is said, till the sand becomes petrified: then, being enclosed in the stone, it may still live for we know not how many ages. The opinion which is in support of this is too numerous, and too circumstantial, to be of any degree of credit. We are

accustomed to see all the animals, with which we are acquainted, eat and drink, it appears to us difficult to conceive, how a toad can be supported in such a dungeon: but if we reflect, that the necessity of nourishment, which animals experience in their ordinary state, proceeds from continual waste of their substance by perspiration, we will appear less incredible, that some animals in a torpid state, perspiring little, because they have no exercise, should have little need of aliment; and that others, which are covered with scales or shells, which stop perspiration, such as land and sea-turtles, serpents, and some species of fish, should be able to subsist a considerable time without any nourishment whatever.—A plant, with its flowers, and dies immediately, if exposed to the air without having its root immersed in a humid soil, from which it may draw a quantity of moisture to supply its wants from its substance and carried continually by the air. Perhaps, however, if we were buried in quicksilver, it might preserve for a considerable space of time its vegetable life, its smell, and colour. If this be the case, it might prove a commodious method of transporting from distant countries delicate plants, which are unable to sustain the inclemency of the weather at sea, and which require particular care and attention. I have seen an instance of common flies preserved in a manner somewhat similar. They had been drowned in Madeira wine, apparently about the time when it was bottled in Virginia, to be sent hither (to London). At the opening of one of the bottles, at the house of a friend where I then was, three drowned flies fell into the first glass filled. Having heard it remarked, that drowned flies were capable of being revived by the rays of the sun, I proposed making the experiment upon these: they were therefore exposed to the sun upon a sieve, which had been employed to strain them out of the wine. In less than three hours, two of them began by degrees to recover life. They commenced by some convulsive motions of the thighs, and then length they raised themselves upon their legs, wiped their eyes with their fore-feet, beat and brushed their wings with their hind-feet, and after began to fly, finding themselves in England, without knowing how they thither. The third continued upon the sunset, when, losing all hopes of him, he was thrown away.

I wish it were possible, from this instance, to invent a method of embalming drowned persons, in such a manner that they may be recalled to life at any period, however distant, for having a very ardent desire to see and observe the state of America an hundred years hence, I should prefer any ordinary death, the being immersed in a

deira wine, with a few friends, till that time, to be then recalled to life by the solar warmth of my dear country ! But since in all probability we live in an age too early and too near the infancy of science, to hope to see such an art brought in our time to its perfection, I must leave the present content myself with the treat, which you are so kind as to promise me, of the resurrection of a fowl or a turkey-cock.

R. FRANKLIN.

An account of the new-invented Pennsylvania Fire-Places : wherein their construction and manner of operation is particularly explained ; their advantages above every other method of warming rooms demonstrated ; and all objections that have been raised against the use of them answered and obviated. With directions for putting them up, and for using them to the best advantage. And a Copper-Plate, in which the several parts of the machine are exactly laid down, from a scale of equal parts.—First printed at Philadelphia in 1745.

In these northern colonies the inhabitants keep fire to sit by generally months in the year ; that is, from the beginning of October, to the end of April ; and, in some winters, near eight months, by taking in part of September and May.

Wood, our common fuel, which these hundred years might be had at every man's door, must be fetched near one hundred miles towns, and makes a very considerable article the expense of families.

 so much of the comfort and convenience of our lives, for so great a part the year, depends on the article of fire ; since fuel is become so expensive, and (as the country is more cleared and settled) will of course grow scarcer and dearer, any new proposal for saving the wood, and for lessening charge, augmenting the benefit of fire, by some particular method of making and managing it, may least be thought worth consideration.

The new fire-places are a late invention to that purpose, of which this paper is intended to give a particular account.

That the reader may the better judge whether this method of managing fire has any advantage over those heretofore in use, it may be proper to consider both the old and new methods separately and particularly, and afterwards make the comparison.

In order to this, it is necessary to understand well, few of the properties of and fire, viz.

1. Air is rarefied by heat, and condensed by cold, i. e. the same quantity of air takes more space when warm than when cold.

This may be shown by several very easy experiments. Take any clear glass bottle (a Florence flask strip of the is) place it before the fire, and as the air within is warmed and rarefied part of it will be driven out of the bottle ; turn it up, place its mouth in a vessel of water, and remove it from the fire ; then, as the air within cools and contracts, you will see the water rise in the neck of the bottle, supplying the place of just so much air as was driven out. Hold a large hot coal near the side of the bottle, and as the air within feels the heat, it will again distend and force out the water.—Or, fill a bladder not quite full of air, tie the neck tight, and lay it before a fire as near as may be without scorching the bladder ; as the air within heats, you will perceive to swell and fill the bladder, till it becomes tight, as if full blown : remove it to a cool place, and you will see fall gradually, till it as first.

2. Air rarefied and distended by heat is specifically lighter than it was before, and will rise other air of greater density. As wood, oil, or any other specifically lighter than water, if placed at the bottom of a vessel of water, will rise till it comes the top ; so rarefied air will rise in common air, till it either comes to air of equal weight, or is by cold reduced to its former density.

A fire then being chimney, the air over the fire is rarefied by the heat, becomes lighter, and therefore immediately rises in the funnel, and goes out ; the other air in the room (flowing towards the chimney) supplies its place, is rarefied in its turn, and rises likewise ; the place of the air thus carried out of the room, is supplied by fresh air coming in through doors and windows, or, if they be shut, through every crevice with violence, as may be seen by holding a candle to a key-hole : if the room tight as that all the together will not supply so much air as is continually carried off, then, in a little time, the current up must flag, and smoke being no longer driven up, must come into the room.

1. Fire (i. e. common fire) throws out light, heat, and smoke (or fume.) The first move in right lines, and with great swiftness, the latter is but just separated from the fuel, and moves only as it is carried by the stream of rarefied air : without a continual accession and recession of air, to carry off the smoky fumes, they would remain crowded about the fire, it.

2. Heat may be separated from the smoke as well as from the light, by means of a plate of , which will suffer heat to pass through it without the others.

* Body or matter of any sort, is said to be specifically heavier or lighter than other matter, when it has more or less substance or weight in the same dimensions.

Fire sends out its rays of heat as well as rays of light equally every way; but the greatest sensible heat is over the fire, while there is, besides the rays of heat shot upwards, a continual rising stream of hot air, heated by the fire, shot round every side.

These things being understood, we proceed to consider the fire-places heretofore in use,

1. The large open fire-places used in the days of our fathers, and generally in the country, and in kitchens.

2. The newer-fashioned fire-places, with low breasts, and hearths.

3. Fire-places with hollow backs, hearths, and jambs of iron (described by M. Gauger, in his tract entitled, *La Mécanique de Feu*) for warming the air as it comes into the room.

4. The Holland stoves, with iron doors opening into the room.

5. The German stoves, which have no opening in the room where they are used, but the fire is put in from some other room, or from without.

6. Iron pots, with open charcoal fires, placed in the middle of a room.

1. The first of these methods has generally the convenience of seats, one in each corner; but they are sometimes too hot to abide in, and, at other times, incommoded with the smoke; there is likewise good room for the cook to move, to hang pots, &c. Their inconveniences are, that they almost always smoke, if the door is not left open; that they require a large funnel, and a large funnel carries a great quantity of air, which occasions what is called a strong draft to the chimney, without which strong draft the smoke would come out of some part or other of so large an opening, so that the door can seldom be shut; and the cold air nips the backs and heels of those that sit before the fire, that they have no comfort till either screens or settles are provided (at a considerable expense) to keep it off, which both darken the room, and darken the fire-side. A moderate quantity of wood in the fire, in a large hearth, seems but little; and, in so strong and cold a draught, warms but little; so that people are continually laying on more. In short, it is next to impossible to have a room with such a fire-place; and I suppose our ancestors never thought of warming to sit in; they purposed war, to have a place to make a fire in, by which they might warm themselves when cold.

2. Most of these old-fashioned chimneys in towns and cities, have been, of late years, reduced to the second mentioned, by building jambs round them, narrowing the hearth, and making a low arch breast. It is strange, methinks, that though chimneys have been so long in use, and yet the people are so

understood till lately, that the workman pretended to make one which always carry off all smoke, but a chimney-cloth was looked upon as essential to a chimney. This improvement, however, by small openings and breasts, has been made in our chimneys, and success in the first experiments has brought it into general use in cities, so that almost all chimneys are now made of that sort, and much fewer bricks will make a stack of chimneys now than formerly. An improvement, so lately made, may give us room to believe, that these improvements may be found to remedy the inconveniences yet remaining. For these chimneys, though they keep rooms generally free from smoke, and the opening being contracted; will allow the door to be shut, yet the funnel still requiring a considerable quantity of air, it rushes in at every crevice so strongly, as to make a continual whistling or howling; and it is very uncomfortable, as it is dangerous, to sit against any such crevice. Many colds are caught from this cause only, it being easier to sit in the open street, for then the pores do all close together and the air does not strike so sharply against any particular part of the body.

The Spaniards have a proverbial saying,

If the wind blows you through a hole,
Make you well, take care of your soul

Women particularly from this, they sit much in the house, get colds in the head, rheums and defluxions, which fall into their jaws and gums, and have destroyed early many a set of teeth in these northern colonies. Great and bright fires do also very much contribute to damage the eyes, dry and shrivel the skin, and bring on early the appearances of old age. In short, many of the diseases proceeding from colds, fevers, pleurisies, &c. to very great numbers of people, may be ascribed to strong drawing chimneys, whereby, in winter weather, a man is scorched behind while he is froze behind.* In the

* As the writer is neither physician nor philosopher, he can only expect he should justify himself by the authority of some that are. M. Clairé P. R. S. in his treatise of *The motion of Air*, says, page 258, &c. "And it is remarked, it is more prejudicial to sit near a window than in a room where there are many candles and a fire, than on a seat without; for the consumption of air thereby occasioned, will always be very great, and this necessarily be replaced by cold air without. Down the chimney none can enter, streams of warm air always arising therein exclude it, and surely must therefore come in wherever other openings would be found. If it happen to be a small room, who sits near them, the smaller the shutters, the warmer will be the room. Even in a small room, a cold man or jump from his bed, in the intensest cold, even a frost, provided he did not continue over long therein, he is in health when he sits, we see by experience that he gets no harm. It is a little while against a window, into which a gusty current of cold air comes, his pores are closed, and he gets a fever. In the

time, very little is done by these chimneys towards warming the room; for the air round the fire-place, which is warmed by the direct rays from the fire, does not continue in the room, but is continually crowded and gathered into the chimney by the current of cold air coming behind it, and so is presently carried off.

In both these sorts of fire-places, the greatest part of the heat from the fire is lost; for as fire naturally darts heat every way, the back, the two jambs, and the hearth, drink up almost all that is given them, very little being reflected from bodies so dark, rough, and unpolished; and the upright heat, which is by far the greatest, flies directly up the chimney. Thus five sixths at least of the heat (and consequently of the fuel) is wasted, and contributes nothing towards warming the room.

As to the first, the sieur Gauger gives, in his *Art de la Mécanique de Feu*, published in 1754, seven different constructions of the third sort of chimneys mentioned above, in which there are hollow cavities made by iron plates in the back, jambs, and hearths, through which plates the heat pass-

ing warms the air in these cavities which continually coming into the room fresh and warm. The invention was very ingenious, and had many inconveniences: the room was warmed in all parts, by the air flowing into it through the heated cavities: cold air was prevented rushing through the crevices, the funnel being sufficiently supplied by the cavities: much less fuel would serve, &c. But the first expense, which was very great, the intricacy of the design, and the difficulty of the execution, especially in old chimneys, discouraged the propagation of the invention; so that there are, I suppose, very few chimneys in which it is used. The upright heat, too, almost all is lost in these, as in the first chimneys.

4. The Holland iron stove, which has a flue proceeding from the top, and a small iron door opening into the room, comes next to be considered. Its conveniences are, that it makes a room all over warm; for the chimney being wholly closed, except the flue of the stove, very little air is required to supply that, and therefore much less is lost in the crevices, or at the door when it is opened. Little fuel is consumed the heat being almost all saved; for it rays out almost equally from all four sides, the bottom and the top, into the room, and presently warms the air around it, which, being rarefied, rises to the ceiling, and its place is supplied by the lower air of the room, which flows gradually towards the stove, and is there warmed, and rises in it, so that there is a continual circulation of all the air in the room is warmed. The air, too, is gradually changed, by the stove-door's being in the room, through which part of it is continually passing, and that makes these stoves wholesomer, at least pleasanter than the German stoves, which are spoken of. They have these inconveniences. There is no sight of the fire, which is in itself a pleasant thing. They are not conveniently made any other use of the fire but that of warming the room. When the room is warm, people, meaning the fire, are apt to forget supplying it with fuel till it is almost out, then growing cold, a great deal of wood is put in, which soon makes it too hot. The change of air is not carried on quite quick enough, so that if any smoke or ill smell happens in the room, it is a long time before it is discharged. For these reasons the Holland stove has not obtained much among the English (who love the sight of the fire) unless in some workshops, where people are obliged to sit near windows for the light, and in such places they have been found of good use.

5. The German stove is like a box, one side wanting. It is composed of five iron plates screwed together, and fixed so as that you may put the stove into it from another stove, or from the outside of the house. It is a kind

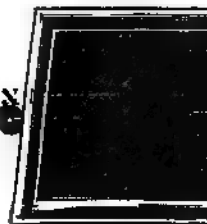
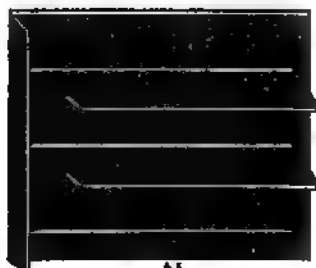
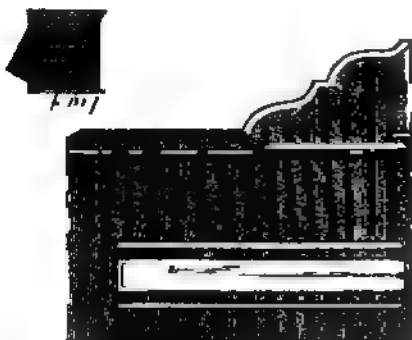
first case, the shock the body endures, is general, uniform, and therefore less force: in the other, a single part, a neck, or ear, perchance, is attacked, and that with the greater violence probably, as it is done by a successive stream of cold air. And the cause of a battery, pointed against a single part of a bastion, will easier make a breach than were they directed to play singly upon the face, and will admit an enemy much sooner into the town.

That warm rooms, and keeping the body warm in winter, are means of preventing such diseases, take the opinion of that learned Italian physician Antonino Paracelsus, in the preface to his tract *de Afflicto Sanitate* translated, where speaking of a particular wet and cold winter, remarkable at Venice for its sicknesses, he says, "Populus autem pleuritici quos Venetici vocant moribus Deo. Jan. Feb. ex causis, adque inclementibus factis est, quod non habebant hypocausta [stove-rooms] et quod non solliciti sunt Itali omnes de arboribus, temporibus, calido, totoque corpore defendendis ab injuria aeris; et tegmina domorum Veneti disponunt parum inclinata, ut nives distius permanscant super tegmina. E contra, Germani, qui experiantur celli inclementiam, perdiderunt sese defensores ob aeris injuria. Tecta construunt multum inclinata, ut deciderent nives. Germani abundant lignis, domosque hypocaustis; foris incedunt pennis pellibus, gossipio, bene melleoeris lorietis staque muniti. In Bavaria interrogatus (Caricostate Germaniam) quid dapis omnibus pleuritide vel pleuritis fuisse abesse: dicitur unus illis pleuritide fuit correptus.

The great Dr. Boerhaave, whose authority alone might be sufficient, in his *Aphorismi*, mentions, as an antecedent cause of pleuritis, "A cold air, driven violently through some narrow passage upon the body, overpowered by labour or fire."

The eastern physicians agree with the Europeans in this point; witness the Chinese treatise *Shi-ching Tsang sung*; i. e. *The Art of preserving Health and long Life*, as translated in Pere Du Halde's account of China, which has this passage, "As, of all the pernicious which ruffle us, anger does the most mischief, so of all malignant affections of the air, a wind that comes through any narrow passage, which is cold and piercing, is most dangerous; and coming upon us unawares infuses itself into the body, often causing grievous diseases. It should therefore be avoided, according to the advice of the ancient proverb, as carefully as the point of an arrow." These mischiefs are avoided by the use of the new-invented fire-places, as will be shown hereafter.

1/2 inches



of oven reversed, its mouth being without, and body within the room that is to be warmed by it. This invention certainly warms a room very speedily and thoroughly with little fuel: no quantity of cold air comes in at any crevice, because there is no discharge of air which it might supply, there being no passage into the stove from the room. These are its conveniences. Its inconveniences are, that people have not even so much sight or use of the fire as in the Holland stoves, and are, moreover, obliged to breathe the same unchanged air continually, mixed with the breath and perspiration of one another's bodies, which is very disagreeable to those who have not been accustomed to it.

6. Charcoal fires in pots are used chiefly in the shops of handicraftsmen. They warm a room (that is kept close, and has no chimney to carry off the warmed air) very speedily and uniformly; but there being no draught to change the air, the sulphurous fumes from the coals, [be they ever so well kindled before they are brought in, there will be some,] mix with it, render it disagreeable, hurtful to some constitutions, and sometimes, when the door is long kept shut, produce fatal consequences.

To avoid the several inconveniences, and at the same time retain all the advantages of other fire-places, was contrived the Pennsylvanian fire place, now to be described. This machine consists of

A bottom plate, (i) (See the plate annexed.)

A back plate, (ii)

Two side plates, (iii iii)

Two middle plates, (iv iv) which, joined together, form a tight box, with winding passages in it for warming the air.

A front plate, (v)

A top plate, (vi.)

These are all cast of iron, with mouldings or ledges where the plates come together, to hold them fast, and retain the mortar used for pointing to make tight joints. When the plates are all in their places, a pair of slender rods, with screws, are sufficient to bind the whole very firmly together, so it appears in Fig. 2.

There are, moreover, two thin plates of wrought iron, viz. the shutter, (vii) and the register, (viii); besides the screw-rods O P, all which we shall explain in their order.

(i.) The bottom plate, or hearth-piece, is round before, with a rising moulding, that serves as a fender to keep coals and ashes from coming to the floor, &c. It has two ears, F G, perforated to receive the screw rods O P; a long air-hole, a, through which the fresh outward air passes up into the air box; and three smoke holes B C, through which the smoke descends and passes away; all represented by dark squares. It has also double ledges to receive between them the bottom

edges of the back plate, the two side plates, and the two middle plates. These ledges are about an inch asunder, and about half an inch high; a profile of two of them, joined to a fragment of plate, appears in Fig. 3.

(ii.) The back plate is without holes, having only a pair of ledges on each side, to receive the back edges of the two.

(iii iii.) Side plates: these have each a pair of ledges to receive the edges of the front plate, and a little shoulder for it to rest on; also two pair of ledges to receive the side edges of the two middle plates which form the air box; and an oblong air-hole near the top, through which is discharged into the room the air warmed in the air-box. Each has also a wing or bracket, H and I, to keep it falling brands, coals, &c. and a small hole, Q and R, for the axis of the register to turn in.

(iv iv.) The air-box is composed of the two middle plates, D E and F G. The first five thin ledges or partitions cast on it, are inches deep, the edges of which are received in so many pair of ledges cast in the other.—The tops of all the cavities formed by these thin deep ledges, are also covered by a ledge of the same form and depth, cast with them; so that when the plates are put together, and the joints luted, there is no communication between the air-box and the smoke. The winding passages of this box, fresh air warmed as it passes into the room.

(v.) The front plate is arched on the under side, and ornamented with foliages, &c. it has no ledges.

(vi.) The top plate has a pair of ears, M N, answerable to those in the bottom plate, and perforated for the same purpose: it has also a pair of ledges running round the under side to receive the top edges of the front, back, and side plates. The air-box does not reach up to the top plate by two inches and a half.

(vii.) The shutter is of thin wrought iron and light, of such a length and breadth as to close well the opening of the fire-place. It is used to blow up the fire, and to shut up and secure it at night. It has two knobs for handles, d d, and commonly slides up and down in a groove, left in putting up the fire-place, between the foremost ledge of the side plates, and the face of the front plate; but some choose to set it aside when it is not in use, and apply it on occasion.

(viii.) The register is also of wrought iron. It is placed between the back plate and air-box, and can, by means of the key S, be turned on its axis so as to lie in any position between level and upright.

The screw-rods O P are of wrought iron, about a third of an inch thick, with a button at bottom, and a screw and nut at top, and may be ornamented with two small screws on above the nuts.

To put this machine to work,

1. A [] of four inch (or, in [] small chimneys, two inch) brick work is to be made in [] chimney, four inches or more from the true back: from the top of this false back a closing is to be made over to the breast of the chimney, that no air may pass into the chimney, but what goes under the false back, and up behind it.

2. Some bricks of the hearth are to be taken up, to form a hollow under the bottom plate; across which hollow runs a thin tight partition, to keep apart the air entering the hollow and the smoke; [] is [] placed between the air-hole [] smoke-holes.

3. A passage is made, communicating with the outward air, to introduce that air into the forepart of the [] under the bottom plate, whence it may rise through the air-hole into the air-box.

4. A passage is made from the back part of [] hollow, communicating with the flue [] the false back: through [] the smoke is to pass.

The fire-place is to be erected upon these hollows, by putting [] the plates in their places, and screwing them together.

Its operation may be conceived by observing the plate entitled, Profile of the Chimney and Fire-place.

M The mantle-piece, or breast of the chimney.

C The funnel.

F The false back and closing.

T True [] of the chimney.

T Top of the fire-place.

F The front of it.

A The place where the fire is made.

D The air-box.

[] The hole in [] side-plate, through which the warmed air is discharged out of the air-box into the room.

H The hollow filled with fresh air, entering [] passage J, and ascending into the air-box through the air-hole in the bottom plate near.

G The partition in the hollow to keep the air and smoke apart.

P The passage under the false back and part of the hearth for the smoke.

The arrows show the course of the smoke.

The [] being made at A, the flame and smoke will ascend and strike the top T, which will thereby receive a considerable heat. The smoke, finding no passage upwards, turns over the top of the air-box, and descends between it and the back plate to the holes in the bottom plate, heating, as it passes, both plates of the air-box, and the said back plate; the front plate, bottom and side plates are also all heated at the []. The smoke proceeds [] the passage that leads [] under and behind the false back, and so rises into the chimney. The air of the room, warmed behind the back plate, and by the sides, front, and top plates, becom-

ing specifically lighter [] the other air in the room, is obliged to rise; but [] closure over the fire-place hindering it from going up [] chimney, it is forced out into the room, rises by the mantle-piece to the ceiling, and spreads all over the top of the room, whence being crowded down gradually by the [] of newly-warmed [] follows and [] above it, the whole room becomes in a short [] equally warmed.

At the same time the air, warmed under the bottom plate, and in the air-box, rises and comes out of the holes in the side-plates, very swiftly, if the door of the room be shut, and joins its current with the [] before [] tioned, rising from the side, back, [] top plates.

The air that [] through the air-box is fresh, though warm; and, computing the swiftness of its motion with the areas of the holes, it is found [] near [] barrels of fresh air are hourly introduced by the air-box; and by this means the air in the room is continually changed, and kept, at the same time, sweet and warm.

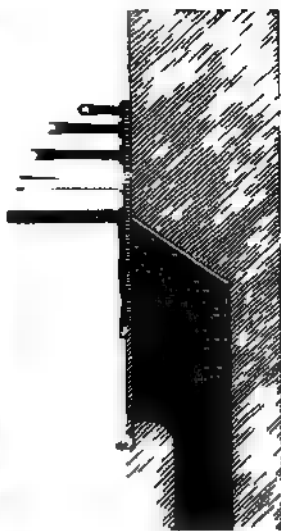
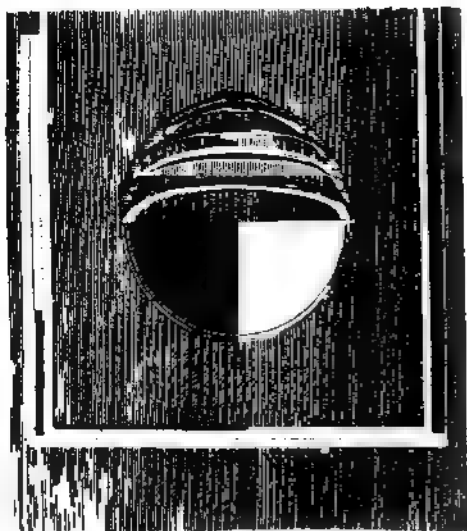
It is to be observed, that the entering air will [] be [] at first lighting the fire, but heats gradually as the fire increases.

A square opening for a trap-door should be left in the closing of the chimney, for the sweeper to go up: the door may be made of slate or tin, and commonly kept close shut, but so placed as that, turning up against the [] of the chimney when open, it closes the vacancy behind the false back, and shuts the soot, that falls in sweeping, out upon the hearth. This trap-door is a very convenient thing.

In rooms where much smoking of tobacco is used, it is also convenient to have a small hole, about five or six inches square, cut [] the ceiling through into the funnel: this hole must have a shutter, by which it may be closed or opened at pleasure. When open, there will be a strong draught of air through [] into the chimney, which will presently carry off a cloud of smoke, and keep the room clear; if the room be too hot likewise, it will carry [] as much of the [] as you please, and then you may stop it entirely, or in part, as you think fit. By this means it is, that the tobacco smoke does not descend among [] heads of the company near the fire, as it must do before it can get into common chimneys.

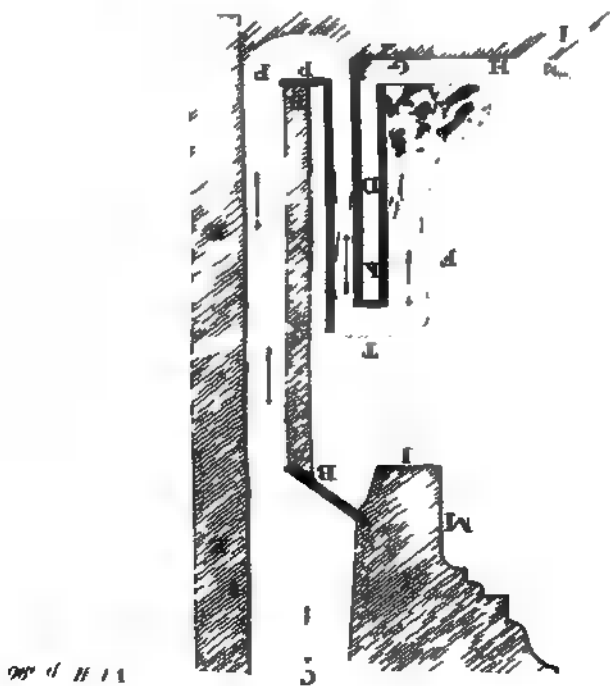
The manner of using this Fire-place.

Your cord-wood must be cut into three lengths; or else a short piece, fit for the fire-place, cut off, and the longer left for the kitchen or other fires. Dry hickory, or ash, or any woods that burn with a clear flame are rather to be chosen, because such are less apt to foul the smoke-passages with soot: and flame communicates with its light, as well as by contact,



SLAPPOORDSING FIRE PLACE p. III
J. 102 1890

vide I. 100



VI H p. 86

Plat V

PLATE OF THE PHYLLOSTOMA (HYMENOPTERA) AT THE

greater heat to the plates and room. But where more ordinary wood is used, half a dry faggot of brush-wood, burnt at the first making the fire in the morning, is very advantageous, as it immediately, by its sudden blaze, heats the plates, and warms the room (which with bad wood slowly kindling would not be done so soon) and at the same time by the length of its flame, turning in the passages, consumes and cleanses away the soot that such bad smoky wood had produced therein the preceding day, and so keeps them always free and clean. When you have laid a little log, and placed your billets on small dogs, as in common chimneys, and put some fire to them, then slide down your shutter as low as the dogs, and the opening being by that means contracted, the air rushes in briskly, and presently the flames the fire is sufficiently kindled, slide it up again.* In of these fire-places there is a little six-inch square trap-door of thin wrought iron or brass, covering a hole of like dimensions near the fore-part of the bottom plate, which being by a ring lifted towards the fire, about an inch, where it will be retained by two spring sides fixed to it perpendicularly (See the plate, Fig. 4.) the air rushes in from the hollow under the bottom plate, and blows the fire. Where this is used, the shutter serves only to close fire at nights. The more forward you can your fire the hearth-plate, not to be incommoded by the smoke, the sooner more will the room warmed. At night, when you go to bed, cover the coals or brands with ashes as usual; then take away the dogs, and slide down the shutter close to the bottom-plate, sweeping a little ashes against it, and no air may pass under it; then turn the register, so as very near to stop the fire behind. If no smoke then comes out at crevices into the room, it is right: if any smoke is perceived to come out, move the register, so as to give a little draft, and it will go the right way. Thus the room will be kept warm all night; for the chimney being almost entirely stopt, very little cold air, if any, will the room at any crevice. When you come to rekindle the fire in the morning, turn open the register before you lift up the slider, otherwise, if there be any smoke in fire-place, it will come out into the room. By the same use of the shutter and register, a blazing fire may be presently stifled, as well as secured, when you have occasion to leave it for any time; and at your return you will

find the brands warm, and ready for a speedy rekindling. The shutter alone will not stifle a fire, for it cannot well be made to fit so exactly but that air will enter, and that in a violent stream, so as to blow and keep alive the flames, and the wood, if the draught be not checked by turning the register to shut the fire behind. The register has also two other uses. If you observe the draught of air into your fire-place to be stronger than is necessary (as in extreme cold weather it often is) so that the wood is consumed faster than usual; in that case, a quarter, half, or two thirds, turn of the register, will check the violence of the draught, and let your fire burn with the moderation you desire: and at the same time both the fire-place and the room be the warmer, because less cold air will enter and pass through them. And if the chimney should happen to take fire (which indeed there is very little danger of, if the preceding direction be observed in making fires, and it be well swept a year; for, much wood being burnt, soot is proportionably made; and the fuel being soon blown into flame by the shutter, or the trap-door bellows, there is consequently less smoke from the fuel to make soot; then, though the funnel should be foul, yet the sparks have such a crooked up down round about way to go, that they are out before they get it.) I say, if ever should be on fire, a turn of the register shuts close, and prevents any air going into the chimney, and the fire may easily be and mastered.

The advantages of this Fire-place.

Advantages above the common fire-places are,

1. That your whole room is equally ed. so that people need not crowd so close round the fire, but may sit the window, have the benefit of the light for reading, writing, needle-work, &c. They may with comfort in any part of the room, which is a very considerable advantage in a large family, where there often be fires kept, because all conveniently at one.

2. If you sit near the fire, you have cold draught of uncomfortable air nipping your back and heels, as when before common fires, by which many catch cold, being scorched before, and as were, froze behind.

If you against a crevice, there sharp draught of cold air playing on you, as in rooms where fires in the common way; by which many catch cold, whence proceed coughs, catarrhs, tooth-aches, fevers, pleurisies, many other diseases.

* The shutter is to be drawn down in this manner, only in those fire-places which are so made as that the distance between the top of the arched opening, and the bottom plate, is the same as the distance between it and the hearth-plate. Where the latter is higher, it is in an annexed (which is agreeable to late improvements) the shutter is set by, and applied occasionally; if it were made deep enough to close the whole opening when slid down, it would lose part of when up.

* Lord Moleworth, in his account of Denmark, says, "That few or none of the people there are troubled with coughs, catarrhs, colds, or such like diseases of the lungs; so that in the midst of winter in the churches, which are very much frequented, there is no

4. In case of sickness, they make most excellent nursing rooms; as they constantly supply a sufficiency of fresh air, so warmed at the same time as to be no way inconvenient or dangerous. A small one does well in a chamber; and, the chimneys being fitted for it, it may be removed from one room to another, as occasion requires, and fixed in half an hour. The equal temper too, and warmth of the air of the room, is thought to be particularly advantageous in some distempers: for it was observed in the winters of 1730 and 1736, when the small-pox spread in Pennsylvania, that very few children of the Germans died of that distemper in proportion to those of English; and this was ascribed, by some, to the warmth and equal temper of air in their stove-rooms, which made the disease as favourable as it commonly is in the West Indies. This conjecture we submit to the judgment of physicians.

5. In common chimneys, the strongest heat from the fire, which is upwards, goes directly up the chimney, and is lost; and there is such a strong draught into the chimney that not only the upright heat, but also the back, sides, and downward heats are carried up the chimney by the draught of air; and the warmth given before the fire, by the rays that strike towards the sides, is continually driven back, crowded into the chimney, and carried up by the draught of air. But here the upright heat strikes and heats the top plate, which heats the air above it, and that comes to the room. The heat likewise, which the fire communicates to the sides, back, bottom air-box, is all brought into the room; for you will find a constant current of warm air coming out of the chimney-corner into the room. Hold a candle just under the mantel-piece, or breast of your chimney, and you will see the flame bent outwards; by laying a piece of smoking paper on the hearth, on either side, you may see how the current of air moves, and where it tends, for it will turn and carry the smoke with it.

6. Thus, as very little of the heat is lost, when this fire-place is used, much less wood will serve you, which is a considerable advantage where wood is dear.

7. When you burn candles near this fire-

place, you will find that the flame burns upright, and does not blow and run the tallow down, by drawing towards the chimney, as against common fires.

This fire-place cures most smoky chimneys, and thereby preserves both the room and furniture.

It prevents the fouling of chimneys; much of the lint and dust that contributes to a chimney, being, by the low arch, obliged to pass through the flame, where it is consumed. Then, less wood being burnt, there is less smoke made. Again, the shutter, or trap-bellows, soon blowing the wood into a flame, the wood does not yield so much smoke as if burnt in a common chimney; for as soon as flame begins, smoke in proportion

10. And if a chimney should be foul, it is much less likely to take fire. If it should take fire, it is easily stifled and extinguished.

11. A fire may be very speedily made in this fire-place by the help of the shutter or trap-bellows, as aforesaid.

12. A fire may soon be extinguished, by closing it with the shutter before, and turning the register behind, which will stifle it, and the brands will remain ready to relight.

13. The room being once warm, the warmth may be retained in it all night.

14. And lastly, the fire is so secured at night, that not a spark will fly out into the room to do damage.

All these conveniences, you do not lose the pleasing sight nor the heat of the fire, as in the Dutch stoves, but may boil the tea-kettle, heat the flat-irons, heat heaters, keep warm a dish of victuals by setting it on the top, &c.

Objections answered.

There are some objections commonly made by people that are unacquainted with these fire-places, which it may not be amiss to endeavour to remove, as they arise from prejudices which might otherwise obstruct, in some degree, the general use of this beneficial machine. We frequently hear it said, *They are of the nature of Dutch stoves; stoves have an unpleasant smell; stoves are unwholesome; and, warm rooms are people tender, and apt to catch cold.*—As to the first, that they are of the nature of Dutch stoves, the description of those stoves, in the beginning of this paper, compared with that of these machines, shows, that there is a most material difference, and that these have vastly the advantage, if they were only in a single article of the admission and circulation of fresh air. But it must be allowed there may have been some cause to complain of the offensive smell of iron stoves. This smell, however, never proceeded from the iron itself, which, in its nature, whether hot or cold, is one of the sweetest of metals, but from the

ness to interrupt the attention due to the preacher. I am persuaded (says he) their warm stoves contribute to their freedom from these kinds of maladies." page 21.

* People who have used these fire-places, differ much in their accounts of the wood saved by them. Some say five sixths, others three fourths, and others much less. This is owing to the great difference there was in their former fires; some (according to the different circumstances of their rooms and chimneys) having been used to make very large, others middling, and others, of a more sparing temper, very small ones: while in these fire-places, their size and draught being nearly the same, the consumption is more equal. I suppose, taking a number of families together, that two thirds, or half the wood, at least, is saved. My common room, I know, is made twice as warm as it used to be, with a quarter of the wood I formerly consumed there.

general uncleanly manner of using these stoves. If they are kept clean, they are as sweet as an ironing-box, which, though ever so hot, never offends the smell of the nicest lady; but it is common to let them be greased, by setting candlesticks on them, or otherwise, to rub greasy hands on them; and, worse still to spit upon them, to try how hot they are, which is an inconsiderate, filthy, unmannerly custom; for the slimy matter of spit-drying on, burns and fumes when the stove is hot, as well as the grease, and smells most nauseously; which such close stove-rooms, where there is no draught to carry off the filthy vapours, almost intolerable to those that are not their infancy accustomed to them. At the same time nothing is easier than to keep them clean; for when by accident they happen to be soiled, a little of soap and water, with a brush, will scour them perfectly: it will also a little strong soap-water.

That hot iron of which gives no offensive smell, those know very well who have (as the writer of this has) been present at a furnace when the workmen pouring out the flowing metal to cast large plates, and not the least smell of it to be perceived. That hot iron does not, like lead, brass, and some other metals, give out unwholesome vapours, is plain from the general health and strength of those who constantly work in iron, the furnace-men, forge-men, and smiths; that it is in its nature a metal perfectly wholesome to the body of man, is known from the beneficial use of chalybeate iron-mine-waters; from good done by taking steel filings in several disorders; and that even the smithy water in which hot irons are quenched, is found advantageous to the human constitution.—The ingenious and learned Dr. Desaguliers, to whose instructive writings the contriver of this machine acknowledges himself much indebted, relates an experiment he made, to try whether heated iron would yield unwholesome vapours; he took a cube of iron, and having given it a very great heat, he fixed it to a receiver, exhausted by the air-pump, that all the air rushing in to fill the receiver, first pass through a hole in the hot iron. He then put a small animal into the receiver, who breathed the air without any inconvenience, or suffering the least disorder. But the same experiment being made with a cube of brass, a mouse put into that air died in a few minutes. Brass, indeed, stinks, even when cold, and much more when hot; lead, too, when hot, yields a very unwholesome steam; but iron is always sweet, and every way taken is wholesome and friendly to the human body—except in weapons.

These rooms make people tender, and apt to catch cold, is as great as (among the English) general. We have

seen in the preceding common rooms are apt to give cold; the writer of this paper may affirm from his own experience, and of his family and who have used warm rooms for these winters past, that by the use of such rooms, people are rendered less liable to take cold, and, indeed, actually hardy. A room made one subject to take cold on going out, lying warm in bed should, by a parity of produce the effect when we rise. Yet we leap out of the naked, in the coldest morning, without any such danger; and in the same manner out of warm clothes into a cold bed. The reason is, that in these cases the pores all close the cold shut out, and the heat within augmented, we soon after feel by the glowing of the skin. Thus no one was ever known to catch cold by the use of the cold bath; and are not cold baths allowed to harden the bodies of that them? Are they therefore frequently prescribed to the tenderest constitutions?—Now every time you go out of a warm room into the cold freezing air, you do it were plunge into a cold bath, and the effect is in proportion the same; for though perhaps you may somewhat chilly at first, you in a little time your bodies hardened and strengthened, your is driven round with a brisker circulation, and a comfortable, steady, uniform inward warmth succeeds that equal outward warmth you first received in the room. Further to confirm this assertion, instance the Swedes, the Danes, and the Russians: these nations are said to live in compared to ours, as hot as ovens;* yet where are the hardy soldiers, though bred in their boasted cool houses, that can, like these people, bear the fatigues of a winter campaign in so severe a climate, march whole days in the neck in snow, and at night intrench in ice as they do?

The mentioning of those northern nations, puts in mind of a considerable public advantage may be a general of these fire-places. It is observable, that though those countries have been well inhabited for many ages, wood is still their fuel,

* Mr. Boyle, in his experiments and observations upon cold, *Shew's Abstractions*, Vol. I. p. says, "It is remarkable, that while the cold has strange and tragical effects at Moscow and elsewhere, the Russians and Livonians should be exempt from them, who accustom themselves to pass immediately from a great degree of heat, to as great a one of cold, without receiving any visible prejudice thereby. I have been told by a person of unquestionable credit, that it was a practice among them, to go from a hot stove into cold water; the same was also affirmed to me by another who resided at Moscow. This tradition is likewise abundantly confirmed by Cleary's 'It is a surprising thing,' says he, 'to see how far the Russians can endure heat; when they are ready to faint, they can go out of their stoves, stark naked, both men and women, and throw themselves into cold water; and even in winter snow.'"

and yet at no very great price; which could have been, if they were universally used stoves, but consumed it as we do, in great quantities, by open fires. By the help of this saving invention our wood may grow as fast as we consume it, and our posterity may warm themselves at a moderate rate, without being obliged to burn their fuel over the Atlantic; if pit-coal were not here discovered (which is an uncertainty) they would surely do.*

We leave it to the political arithmeticians to compute how much money will be saved to a country, by its spending two thirds less of fuel; how much labour saved in cutting and carriage of it; how much more land may be cleared by cultivation; how great the profit by the enormous quantity of work done, in those trades particularly that do exercise the body so much, but that the workfolks are obliged to run frequently to the fire to warm themselves: the physicians may say, how much better thick-built towns and cities will be, now half suffocated with sulphury smoke, when so much less of that smoke shall be made, and the air breathed by the inhabitants be consequently much purer. These things it will suffice just to have mentioned; let us proceed to give necessary directions to the workman who is to fix or set up fire-places.

Directions to the Bricklayer.

The chimney being first well swept and cleansed from soot, &c. lay the bottom plate down on the hearth, in the place where the fire-place is to stand, which may be as far as the hearth will allow. Chalk a line from one of its back corners round the plate to the other corner, that you may afterwards know its place when you come to set it; and from those corners, two parallel lines to the back of the chimney: make marks also on each side, that you may know where the partition is to stand, which is to prevent any communication between the air and smoke. Then, removing the plate, make a hollow under it and beyond it, by taking up as many of the bricks or tiles as you can, within your chalked lines, quite to the chimney-back. Dig out six or eight inches deep of the earth or rubbish, all the breadth and length of your hollow; then make a passage of four inches square (if the place will allow so much) leading from the hollow to some place communicating with the outer air; by this air we may breathe without the room you intend. This passage may be made to enter your hollow on either side, or the fore part, just as you find convenient, in

circumstances of your chimney considered.— If the fire-place is to be put up in a chamber, you may have communication of outer air from the staircase; or from between the chamber floor, and ceiling of the lower room, making only a small hole in the wall of the house entering the space betwixt two joists with your air-passage in communication. If this air-passage be so made, a little grate of wire will keep the passage being made, and, if it runs under any part of the hearth, tiled over securely, you may proceed to raise your false back. This may be of four inches or more inches thickness, as you have room, but let it stand at least four inches from the chimney-back. In small chimneys it runs from jamb to jamb, but in large chimneys, you need not make it wider than the back of the fire-place. To begin it, you may form an arch nearly flat, of three bricks end on end, the hollow, leave a passage the breadth of the iron fire-place, and five or six inches deep, rounding the bottom, for the smoke to turn and pass under the false back, and so behind it up the chimney. The false back is to rise till it is as high as the breast of the chimney, and then close over the breast,* always observing, if there is a wooden mantel-tree, to close above it. If there is no wood in the breast, you may arch over close even with the lower part of the breast. By this closing the chimney is made tight, that no air or smoke may pass up it, without going under the false back. Then from side to side of your hollow, against the marks you made with chalk, raise a tight partition, brick-on-edge, to separate the smoke from the smoke, bevelling away to half an inch the partition that comes just under the air-hole, that the air may have a free passage up into the air-box: lastly, close the hearth over that part of the hollow that is between the false back and the place of the bottom plate, leaving about half an inch under the plate, which piece of hollow hearth may be supported by a bit or two of iron-hoop; then your chimney is to receive the fire-place.

To set it, lay first a little of mortar round the edges of the hollow, the top of the partition: then lay down your bottom plate in its place (with the rods in it) and tread it till it lies firm. Then put a little fine mortar (made of lean lime, with a coarse hair) into its joints, and set in your back plate, leaning for the present against the false back: then set in your air-box, with a little mortar in its joints; then put in the two sides, closing them up against the air-box, with in their grooves, fixing at the same

* Pit-coal has been discovered since in various parts of the State. The Pennsylvania contains vast treasures, which only require canals and roads to convey them in quantities sufficient for the supply of the whole continent.

* See page 386, where the trap-door is ought to be in this closing.

time your register : then bring up your back to its place, with mortar in its grooves, and that will bind the sides together. Then put in your front plate, placing it as far back in the groove as you can, to leave room for the sliding plate : then lay on your top plate, with mortar in its grooves also, screwing the whole firmly together by means of the rods. The capital letters A B D E, &c. in the annexed cut, show the corresponding parts of the several plates. Lastly, the joints being pointed all around on the outside, the fire-place is fit for use.

When you make your first fire in it, perhaps if the chimney be thoroughly cold, it may not draw, the work too being cold and damp. In such case, put first a few shovels of hot coals in the fire-place, then lift up the chimney-sweeper's trap-door, and putting in a sheet or two of flaming paper, shut it again, which will set the chimney a drawing immediately, and when it is filled with a column of warm air, it will draw strongly continually.

The drying of the mortar and work by the first fire may smell unpleasantly, but that will soon be over.

In some shallow chimneys, to make more room for the false back and its flue, four inches or more of the chimney back may be picked away.

Let the chimney be made as tight as conveniently it may be, so will the outer air, that must come in to supply the room and draught of the fire, be all obliged to pass through the passage under the bottom plate, and up through the air-box, by which it will not come cold to your backs, but be warmed as it comes in, and mixed with the warm air round the fire-place, before it spreads in the room.

As a great quantity of cold air, in extremely cold weather especially, will presently fill a room if the door be carelessly open, it is good to have some contrivance to shut it, either by means of screw hinges, a spring, or a pulley.

When the pointing in the joints is all dry and hard, get some powder of black lead (broken bits of black crucibles from the silversmiths, pounded fine, will do) and mixing it with a little rum and water, lay it on, when the plates are warm, with a hard brush, on the top and front plates, part of the side and bottom plates, and over all the pointing; and, as it dries, rub it to a gloss with the same brush, so the joints will not be discerned, but it will look all of a piece, and shine like iron. And the false back being plastered and white-washed, and the hearth reddened, the whole will make a pretty appearance. Before the black lead is laid on, it would not be amiss to wash the plates with strong lye and a brush, or soap and water, to cleanse

them from any spots of grease or filth that may be on them. If any grease should afterwards come on them, a little wet ashes will get it out.

If it be well set up, and in a tolerable good chimney, smoke will draw in from as far as the fore part of the bottom plate, as you may try by a bit of burning paper.

People are at first apt to make their rooms too warm, not imagining how little a fire will be sufficient. When the plates are no hotter than that one may just bear the hand on them, the room will generally be as warm as you desire it.

Soon after the foregoing piece was published, some persons in England, in imitation of Dr. Franklin's invention, made what they call Pennsylvanian Fire-Places, with improvements; the principal of the pretended improvements is, a contraction of the passages in the air-box, originally designed for admitting a quantity of fresh air, and warming it as it entered the room. The contracting these passages gains indeed more room for the grate, but in a great measure defeats their intention. For if the passages in the air-box do not greatly exceed the dimensions the amount of all the crevices by which cold air can enter the room, they will not considerably prevent, as they were intended to do, the entry of air through them crevices.

To Dr. Ingenhauz, Physician to the Emperor, at Vienna.*

On the Cause and Cure of Smoky Chimneys.—
Read in the American Philosophical Society
Oct. 21. 1796

At See, Aug. 2A. 1783

DEAR FRIEND,—In answer of your letters, a few before I left France, you desired me to give you in writing my thoughts upon the construction and use of chimneys, a subject you had sometimes heard me touch upon in conversation. I embrace willingly the leisure afforded by my present situation to comply with your request, as it will not only show my regard for the desires of a friend, but at the same time be of some utility to others: the doctrine of chimneys appearing as yet generally well understood, and mistakes respecting them being attended with constant inconvenience, if not remedied, and with fruitless expence, if the errors are mistaken.

Those who would be acquainted with this subject should begin by considering on what principle smoke ascends in any chimney. At first many are apt to think that smoke is in

* This treatise was published in a separate pamphlet, in Germany, England, and America; it has also appeared in the Transactions of the American Philosophical Society.

its nature and of itself specifically lighter than air, and rises in it for the same reason that cork rises in water. These see no cause why smoke should not rise in the chimney, though the room be ever so close. Others think there is a power in chimneys to draw up the smoke, and that there are different forms of chimneys which are more or less of this power. These amuse themselves with searching for the best form. The equal dimensions of a funnel in its whole length is not thought artificial enough, and it is made, for fancied reasons, sometimes tapering and narrowing from below upwards, and sometimes the contrary, &c. A simple experiment or two may serve to give more correct ideas. Having lit a pipe of tobacco, plunge the stem to the bottom of a decanter filled with cold water; then putting a rag over the bowl, blow through it and make the smoke descend in the stem of the pipe, the end of which it will rise in bubbles through the water; and being thus cooled, will not afterwards rise to go out through the neck of the decanter, but remain spreading itself and resting on the surface of the water. This shows that smoke is really heavier than air, and that it is carried upwards only when attached to, or acted upon, by air that is heated, and thereby rarefied and rendered specifically lighter than the air in its neighbourhood.

Smoke being rarely seen but in company with heated air, and its upward motion being visible, though that of the rarefied air that drives it is not so, has naturally given rise to the error.

I need not explain to you, my learned friend, what is meant by rarefied air; but if you make the public use you propose of this letter, it may fall into the hands of some who are unacquainted with the term and with the thing. These then may be told, that air is a fluid which has weight as well as others, though about eight hundred times lighter than water. That heat makes the particles of air recede from each other and take up more space, so that the same weight of air heated will have more bulk, than equal weights of cold air which may surround it, and in that case must rise, being forced upwards by such colder and heavier air, which presses to get under it and take its place. That air is so rarefied or expanded by heat may be proved to their comprehension, by a blown bladder, which, laid before a fire, will soon swell, grow tight, and burst.

Another experiment may be to take a glass tube about an inch in diameter, and twelve inches long, open at both ends and fixed upright on legs, so that it need not be handled, for the hands might warm it. At the end of a quill five or six inches of the light filament of silk, so that it may be held either above the upper end of the tube or un-

der the lower end, your warm hand being at a distance by the length of the quill. (See the plate, fig. 1.) If there were any motion of air through the tube, it would manifest itself by its effect on the silk; if the tube and the air in it are of the same temperature with the surrounding air, there will be no such motion, whatever may be the form of the tube, whether crooked or strait, below and widening upwards, or the contrary; the air in it will be quiescent. Warm the tube, and you will find, as long as it continues warm, a constant current of air entering below and passing up through it, discharged at the top; because the warmth of the tube being communicated to the air it contains, rarefies that air and makes it lighter than the air without, which therefore rises in below, forces it upwards, and follows and takes its place, and is rarefied in its turn. And, without warming the tube, if you hold under it a knob of hot iron, the air thereby heated will rise and fill the tube, going out at its top, and this motion in the tube will continue as long as the knob remains hot, because the air entering the tube below is heated by passing near and over that knob.

That this motion is produced merely by the difference of specific gravity between the fluid within and that without the tube, and not by any fancied form of the tube itself, may appear by plunging it into water contained in a glass jar a foot deep, through which such motion might be seen. The water within and without the tube being of the same specific gravity, balance each other, and both remain at rest. But take out the tube, stop its bottom with a finger and fill it with olive oil, which is lighter than water, then stopping its top, place it as before, its lower end under water, its top a very little above. As long as you keep the bottom stopt, the fluids remain at rest, but the moment it is unstopt, the oil enters below, forces the lighter, and takes its place. And the motion then ceases, merely because the fluid is successively made lighter, as air may be by a tube.

In fact, no form of the funnel of a chimney has any share in its operation or effect respecting smoke, except its height. The longer the funnel, if erect, the greater its force when filled with heated and rarefied air, to draw in below and drive the smoke, if one may, in compliance with custom, the expression draws, when in fact it is the superior weight of the surrounding atmosphere that presses to enter the funnel below, and so drives up before it the smoke and warm air it meets with in its passage.

I have been the more particular in explaining these first principles, because, for want of clear ideas respecting them, much fruitless experiment has been occasioned; not only single chimneys, but many instances, within my

knowledge, whole stacks having been pulled down and rebuilt with funnels of different forms, imagined more powerful in drawing smoke; but having still the same height and the same opening below, have performed no better than their predecessors.

What is it then which makes a smoky chimney, is, a chimney which, instead of conveying all the smoke, discharges a part of it into the room, offending the eyes and damaging the furniture?

The causes of this effect, which have fallen under observation, amount to nine, differing from each other, and therefore requiring different remedies.

1. *Smoky chimnies in a new house,* such, frequently from mere want of air. The workmanship of the building all good, and just out of the workman's hand, the joints of the boards of the flooring, and of the panells of wainscoting are all true and tight, the more so as the walls, perhaps not yet thoroughly dry, preserve a dampness in the air of the room which keeps the wood-work swelled and close. The doors and the shutters too, being worked with truth, shut with exactness, so that the room is as tight as a box, no passage being left open for air to enter, except the keyhole, and even that is sometimes covered by a little dropping shutter. Now if smoke cannot rise but as connected with rarefied air, and a column of such air, filling the funnel, cannot rise, unless other air be admitted to supply its place; and if, therefore, no current of air enter the opening of the chimney, there is nothing to prevent the smoke coming out into the room. If the motion upwards of the air in a chimney is freely supplied, be observed by the raising of the smoke or a feather in it, and it is considered that in a time such a quantity is rising from the fire to the top of the chimney, a column of air equal to the content of the funnel must be discharged, and an equal quantity supplied from the room below, will appear absolutely impossible that such operation should be possible if the tight room is kept shut; for there any force capable of drawing constantly so much air out of it, will soon be exhausted like the receiver of an air-pump, and no animal could live in it. Those who stop every crevice in a room prevent the admission of fresh air, and yet would have their chimney carry up smoke, require inconsistencies, and expect impossibilities. Yet under this situation, I have known the owner of a new house, in despair, and ready to quit it, much less than it cost, conceiving it uninhabitable, because a chimney in any one of its rooms would carry off the smoke, unless a door or window were left open. Much expense has also been made, and chimneys which had really no fault; in one house particularly that I knew, of a Westminister,

amounted to no less than three hundred pounds, after his house had been, as he thought, finished, and all charges paid. And after all, several of the alterations were ineffectual, for want of understanding the true principles.

Remedies. When you find on trial, that opening the door or a window, enables the chimney to carry up all the smoke, you may be sure that want of air from without, was the cause of its smoking. I say from without, to guard you against a common mistake of those who may tell you, the room is large, contains abundance of air, sufficient to supply any chimney, and therefore it cannot be that the chimney wants air. Those reasoners are ignorant, that the largeness of a room, if tight, is in this case of small importance, since it cannot part with a chimney full of air without occasioning so much vacuum; which it requires a great force to effect, and could not be done if effected.

It appearing plainly, then, that some of the outward air must be admitted, the question will be, how much absolutely necessary; for you would avoid admitting more, as being contrary to one of your intentions in having a fire, viz. that of warming your room. To discover this quantity, shut the door gradually while a middling fire is burning, till you find that, before it is quite shut, the smoke begins to come out into the room, then open it a little till you perceive the smoke comes no longer. There hold the door, and observe the width of the open crevice between the edge of the door and the rabbit it should shut into. Suppose the distance to be half an inch, and the door eight feet high, you thence that your room requires so much for air equal in area to ninety-six half inches, or forty-eight square inches, or a passage of six inches by eight. This, however, is a large supposition, there being few chimneys, that, having a moderate opening and a tolerable height of funnel, will not be satisfied with such a crevice of a quarter of an inch; and I have found a square of six by six, or thirty-six square inches, to be a pretty good medium that will serve for chimneys. High funnels, with low openings, way indeed supplied through less space, because for that will appear hereafter, the force of levity, if one may so speak, being greater in such funnels, the cool air enters the greater with greater velocity, and consequently in the same time.— This however has limits, for experience shows, that no increased velocity, so occasioned, has made the admission of air through a keyhole equal in quantity to that through an open door; though through the door the current moves slowly, and through the keyhole with great rapidity.

It remains then to be considered how and where this necessary quantity of air from with-

out is to be admitted so as to be least inconvenient. For if at the door, left so much open, the air thence proceeds directly to the chimney, and in its way comes cold to your back and heels as you sit before your fire. If you keep the door shut, and raise a little the sash of your window, you feel the same inconvenience. Various have been the contrivances to avoid this, such as bringing in fresh air through pipes in the jambs of the chimney, which, pointing upwards, should blow the smoke up the funnel; opening passages into the funnel above, to let in air for the same purpose. But these produce an effect contrary to that intended; for as it is the constant current of air passing from the room through the opening of the chimney into the funnel which prevents the smoke coming out into the room, if you supply the funnel by other means or in other ways with the air it wants, and especially if that air be cold, you diminish the force of that current, and the smoke in its effort to enter the room finds less resistance.

The wanted air must then indispensably be admitted into the room, to supply what goes off through the opening of the chimney. M. Gauger, a very ingenious and intelligent French writer on the subject, proposes with judgment to admit it above the opening of the chimney; and to prevent inconvenience from its coldness, he directs its being made to pass in its entrance through winding cavities made behind the iron back and sides of the fireplace, and under the iron hearth-plate; in which cavities it will be warmed, and even heated, so as to contribute much, instead of cooling, to the warming of the room. This invention is excellent in itself, and may be made with advantage in building new houses; because the chimney may then be so disposed as to admit conveniently the cold air to such passages: but in houses built without such views, the chimneys are often so situated as not to be so convenient, without great and expensive alterations. Easy and cheap methods, though not quite so perfect in themselves, are of more general utility; and such are the following.

In all rooms where there is a fire, the body of air warmed and before the chimney is continually changing place, and making room for other air that is to be warmed in its turn. Part of it enters and goes up the chimney, and the rest rises and takes place near the ceiling. If the room be lofty, that warm air remains above our heads as long as it continues warm, and we are little benefited by it, because it does not descend till it is cooler. Few can imagine the difference of climate between the upper and lower parts of such a room, who have not tried it by the thermometer, or by going up a ladder till their heads are near the ceiling. It is then among this warm air that the wanted quantity of

outward air is best admitted, with which being mixed, its coldness is abated, and its inconvenience diminished so as to become scarce observable. This may be easily done, by drawing down about an inch the upper sash of a window; or, if not moveable, by cutting such a crevice through its frame; in both which cases, it will be well to place a thin shelf of the length, to conceal the opening, and sloping upwards to direct the entering air horizontally along and under the ceiling. In some houses the air may be admitted by such a crevice made in the wainscot, cornice, or plastering, near the ceiling and over the opening of the chimney. This, if practicable, is the chosen, because the entering cold air will there meet with the warmest rising air from before the fire, and be soonest tempered by the mixture. The same kind of shelf should also be placed here. Another way, and not a very difficult one, is to take out an upper pane of glass in one of your sashes, set in a tin frame, (Plate, Fig. 2.) giving it two springing angular sides, and then replacing it, with hinges below on which it may be turned to open more or less above. It will then have the appearance of an internal skylight. By drawing this pane in, more or less, you may admit what air you find necessary. Its position naturally throw that air up and along the ceiling. This is what is called in France a *Wes in das*? As this is a German question, the invention is probably of that nation, and takes its name from the frequent asking of that question when it first appeared. In England, some have of late years cut a round hole about five inches diameter in a pane of the sash and placed against it a circular plate of tin hung on an axis, and cut into vanes, which, being separately bent a little obliquely, are acted upon by the entering air, so as to force the plate continually round like the vanes of a windmill. This admits the outward air, and by the continual whirling of the vanes, does in some degree disperse it. The noise only, is a little inconvenient.

2. A second cause of the smoking of chimneys is, their openings in the room being too large; that is, too wide, too high. Architects in general have no other ideas of proportion in the opening of a chimney, than what relate to symmetry and beauty, respecting the dimensions of the room: while its true proportion, respecting its utility, depends on quite other principles; they might more properly proportion the step in a stair-case to the height of the story, instead of to the natural elevation of men's legs mounting. The proportion then to be regarded, is what relates to the height of the funnel. For as the funnels in the different

* See Notes at the end of this paper, No. 1.

a house are necessarily of different heights or lengths, that from the lowest floor being the highest or longest, and those of the other floors shorter and shorter, till we come to those in the garrets, which are of course the shortest: and the force of draft being, as already said, in proportion to the height of funnel filled with rarefied air; and a current of air from the room into the chimney, sufficient to fill the opening, being necessary to oppose and prevent the smoke coming out into the room; ■ follows, ■ openings of the longest funnels may be larger, and that those of the shorter funnels should be smaller. For if there be a large opening to a chimney that does not draw strongly, the funnel may happen to be furnished with the air it demands by a partial current entering on one side of the opening, and, leaving the other side free of any ■ current, may permit the smoke to ■ there into the ■. Much ■ of the force of ■ in a funnel depends ■ the degree of rarefaction in the air it contains, and that depends on the nearness to the fire of its passage in entering the funnel. If it can enter far from the fire on each side, or far above the fire, in a wide or high opening, it receives little heat in passing by the fire, and the contents of the funnel is by that means ■ different in levity from the surrounding atmosphere, and its force in drawing ■ quently weaker. Hence if too large an opening be given to chimneys in upper ■ those rooms will ■ smoky: on the other hand, if too small openings be given to chimneys in the lower rooms, the entering air, operating ■ directly and violently on ■ fire, and afterwards strengthening the draft as ■ ascends the funnel, will ■ the ■ too rapidly.

Remedy. As different circumstances frequently mix themselves in these matters, it is difficult to give precise dimensions for the openings of all chimneys. Our fathers made them generally much ■ large; ■ have lessened them; but they ■ often still of greater dimension than they should be, ■ human eye not being easily reconciled to sudden and great changes. If you suspect that your chimney smokes from the too great dimension of its opening, contract it by placing moveable boards so as ■ lower and narrow it gradually, ■ you ■ the smoke no longer ■ the room. The proportion so found will ■ which ■ proper for that chimney, ■ you may employ the bricklayer or mason to reduce it accordingly. However, ■ in building ■ houses, something must ■ sometimes hazarded, I would make the openings in my lower rooms about thirty inches ■ and eighteen deep, and those in ■ upper, only eighteen inches square and ■ quite so deep; the intermediate ■ ■ minishing in proportion as ■ height ■ fun-

nel diminished. In the larger opening, billets of two feet long, or half the common length of cordwood, may be burnt conveniently; ■ ■ smaller, such wood may be sawed into thirds. Where coals are the fuel, the grates will be proportioned to the openings. The same depth is nearly necessary to all, the funnels being all made of a size proper to admit a chimney-sweeper. If in large and elegant rooms custom or fancy should require the appearance of a large chimney, it may be formed of extensive marginal decorations, in marble, &c. In time, perhaps, that which is fittest in the nature of things may ■ to ■ thought handiomest. ■ present, when men and women in ■ ■ trices show themselves ■ with ■ forms ■ has given to their heads, waists, ■ feet, and pretend ■ shape them more perfectly, ■ is hardly ■ be expected that they will be content always with the ■ form of a chimney. And there are ■ I know, so bigoted to the fancy of a large noble opening, that rather than change it, they would submit to have damaged furniture, sore eyes, and skins almost smoked ■ bacon.

3. Another ■ of smoky chimneys is, too short a funnel. This happens necessarily in some cases, as where a chimney is required in a low building; for if the funnel be ■ high above the roof, in order to strengthen its draft, it is then in danger of being blown down, and crushing the roof in ■ fall.

Remedies. Contract the opening of the chimney, so as to oblige ■ the entering air to pass through or very near the fire; whereby it will be more heated and rarefied, the funnel itself be ■ warmed, ■ its ■ have more of what may be called ■ force of levity, so as ■ rise strongly and maintain a good draft ■ the opening.

Or you may in ■ cases, ■ advantage, ■ additional stories ■ the low building which will support a ■ gh funnel.

If the low building be ■ as a kitchen, and ■ contraction of the opening therefore inconvenient, a large ■ being necessary, ■ least when there ■ great dinners, ■ the free management of ■ many cooking utensils; in such ■ I would advise ■ building of two ■ funnels joining to ■ first, and having three moderate openings, ■ each funnel, instead of one large ■. When there is occasion to use ■ one, the other two may ■ kept shut by sliding plates, hereafter to ■ described;* and two or all of them may ■ together when wanted. This will in ■ be an ■ but ■ an useless one, since your cooks will work with more comfort, see better than in a smoky kitchen what they are about, your victuals will be cleaner dressed, and not ■ of smoke, ■ is often

the and to render the effect more certain, a stack of three funnels may be safely built higher above the roof than a single funnel.

The case of two short a funnel is more general than would be imagined, and often found where one would not expect it. For it is not uncommon, in ill-contrived buildings, instead of having a funnel for each room or fire-place, to bend and turn the funnel of an upper room so as to make it enter the side of another funnel that comes from below. By this means the upper room funnel is made short of course, since its length can only be reckoned from the place where it enters the lower room funnel; and that funnel is also shortened by all the distance between the entrance of the second funnel and the top of the stack; for all that part being readily supplied with air through the second funnel, adds no strength to the draught, especially as that air is cold. There is no fire in the second chimney. The only easy remedy here is, to keep the opening shut of that funnel in which there is no fire.

4. Another very common cause of the smoking of chimneys, is, *their overpowering one another*. For instance, if there be chimneys in one large room, and you make fires in both of them, the doors and windows close shut, you will find that the greater and stronger fire shall overpower the weaker, and draw air down its funnel, supply its own demand; which air descending in the weaker funnel will drive down its smoke, and force it into the stronger. If, instead of being in one room, the two chimneys are in two different rooms, communicating by a door, the case is the same whenever that door is open. In a very tight house, I have known a kitchen chimney on the lowest floor, when it had a great fire in it, overpower any other chimney in the house, and draw air and smoke into its room, as often as the door was opened communicating with the staircase.

Remedy. Take care that every room has the means of supplying itself from without, with the air its chimney may require, so that no one of them may be obliged to borrow from another, under the necessity of lending. A variety of these means have been already described.

5. Another cause of smoking is, *when the tops of chimneys are commanded by higher buildings, or by a hill, so that the wind blowing over such eminences like water over a dam, sometimes almost perpendicularly on the tops of the chimneys that lie in its way, and beats down the smoke contained in them.*

Remedy. That commonly applied to this case, is a turncap made of tin or plate iron, covering the chimney above and on three sides, open on one side, turning on a spindle, and which, being guided or governed by a vane,

always presents it back to the wind. I believe may be generally effectual, though not certain, as there may be cases in which it will not succeed. Raising your funnels, if practicable, so as their tops may be higher, or at least equal with the commanding eminence, is more to be depended on. But the turning cap, being easier and cheaper, should first be tried. If obliged to be in such a situation, I would choose to place my doors on the side next the hill, and the backs of my chimneys on the furthest side; for then the column of air falling on the eminence, will be counter-pressing on that below, and forcing it to enter the doors, or *Was-ist-dases* on that side, would tend to balance the pressure on the chimneys, and leave the funnels more free in the exercise of their functions.

There is another case of command, the reverse of that last mentioned. It is when the commanding eminence is farther from the chimney than the chimney commanded. To plain this a figure may be necessary. Suppose then a building whose side A happens to be exposed to the wind, forms a kind of dam against its progress. (Plate, figure 1.) The air obstructed by this dam will, like water, press and search for passages through it; and finding the top of the chimney below the top of the dam, it will force itself down that funnel in order to get through by some door or window open on the side of the building. And if there be a fire in the chimney, its smoke of course beat down, and the fire is

Remedy. I know of but one, which is to raise such funnel higher than the roof, supporting it, if necessary, by iron bars. For a turn-cap in this case has no effect, the dammed-up air pressing down through it in whatever position the wind may have placed the opening.

I know a city in which many houses are rendered smoky by this operation. For their kitchens being built behind, and connected by a passage with the houses, and the tops of the kitchen chimneys lower than the top of the houses, the whole side of a street, when the wind blows against its back, forms such a dam as above described; and the wind, so obstructed, forces down the chimneys (especially where they have weak openings in them) to pass through the passage and house into the street. Kitchen chimneys, so formed, situated, have another inconvenience. In summer, if you open your upper room windows for air, a light breeze blowing your kitchen chimney towards the house, though not strong enough to force down the smoke as aforesaid, is sufficient to enter into your windows, and fill the rooms with it; which, besides the disagreeableness, damages your furniture.

7. Chimneys, drawing well, and

sometimes made to smoke by the improper and inconvenient situation of a door. When the door and chimney are on the same side of the room as in the figure, if the door A, being in the corner, is made to open against the wall (Plate, figure 4) which is common, as being there, when open, more out of the way, it follows, that when the door is only opened in part, a current of air rushing in passes along the wall into and across the opening of the chimney B, and fits some of the smoke out into the room. This happens more certainly when the door is shutting, for then the force of the smoke is augmented, and becomes very inconvenient to those who, warming themselves by the fire, happen to be in its way.

The remedies are obvious and easy. Either put an intervening screen from the round great part of the fire-place; or, which is perhaps preferable, shift the hinges of your door, so as it may open the other way, and when open throw the air along the other wall.

3. A room, that has no fire in its chimney, is sometimes filled with smoke which is driven at the top of its funnel and descends into the room. In a former paper* I have already explained the descending currents of air in cold funnels; it may not be amiss however to repeat here, that funnels without fire produce this effect, according to their degree of coldness or warmth, on the air that happens to be contained in them. The surrounding atmosphere is frequently changing its temperature; but stacks of funnels, covered from winds and by the house that contains them, retain a more equal temperature. If, after a warm season, the outward air suddenly grows cold, the empty funnels begin to draw strongly upward; that is, they rarefy the air contained in them, which of course rises, cooler air enters below to supply its place, is rarefied in its turn and rises; and this operation continues till the funnel grows cooler, the outward air, or both, when the motion ceases. On the other hand, if after a cold season, the outward air suddenly grows warm and of course lighter, the air contained in the cool funnels, being heavier, descends into the room; and the warmer air which enters their tops being cooled in its turn, and made heavier, continues to descend; and this operation goes on till the funnels are warmed by the passing of warm air through them, or the air itself grows cooler.

The temperature of the air and of the funnels is nearly equal, the difference of warmth in the air between day and night is sufficient to produce these currents, the air will begin to ascend the funnels as the cool of the evening comes on, and this current will continue till perhaps nine or ten o'clock the next morning,

when it begins to hesitate; and as the heat of the day approaches, it sets downwards, and continues so till towards evening, when it again rises, at that time, and then goes upwards constantly during the night, as before mentioned. Now when smoke issuing from the tops of neighbouring funnels passes over the tops of funnels which are at the time drawing downwards, as they often are in the middle part of the day, such smoke is of necessity drawn into these funnels, and descends with the air into the chamber.

The remedy is to have a sliding plate, hereafter described,* which shuts perfectly the offending funnel.

9. Chimneys which generally rise well, do nevertheless sometimes give trouble into rooms, it being driven down by strong winds passing over the tops of their funnels, though descending from any commanding eminence. This is most frequent where the funnel is short, and the opening turned from the wind. It is the more grievous, when it happens to be a cold wind that produces the effect, because when you most want your fire, you are sometimes obliged to extinguish it. To understand this, it may be considered, that the rising light air, to obtain a free issue from the funnel, must push out of its way or oblige the air that is in it to rise. In a time of calm or of little wind this is done visibly, we see the smoke that is brought up by that air rise in a column above the chimney. But when a violent current of air, that is, a strong wind, blows over the top of a chimney, its particles have received so much force, which keeps them in a horizontal direction and follow each other so rapidly, that the rising light air has not strength sufficient to oblige them to quit that direction upwards to permit its issue. Add to this, that some of the current passing that side of the funnel which it first meets with, viz. at A, (Plate, figure 5.) having been compressed by the resistance of the funnel, expands itself over the flue, and strike the interior opposite side at B, from whence it may be reflected downwards and from side to side in the direction of the pricked lines c c c.

Remedies. In some places, particularly in Venice, where they have not stacks of chimneys but single flues, the custom is, to open or widen the top of the flue rounding in the true form of a funnel; (Plate, figure 6) which some think may prevent the effect just mentioned, for that the wind blowing over one of the edges into the funnel may be slanted out again on the other side by its form. I have had no experience of this; but I have lived in a windy country, where the contrary is practiced, the tops of the flues being narrowed inwards, so as to form a slit for the issue of the smoke,

* See Notes at the end of this paper, No. X.

* See Notes at the end of this paper, No. XI.

long as the breadth of the funnel, and only four inches wide. This seems to have been contrived on a supposition, that the entry of the wind would thereby be obstructed, and perhaps it might have been imagined, that the whole force of the rising warm air being condensed, as it were, in the narrow opening, would thereby be strengthened, so as to overcome the resistance of the wind. This however did not always succeed; for when the wind was at north-east and blew fresh, the smoke was forced down by fits into the room I commonly sat in, so as to oblige me to shift the position of my seat. The position of the slit of this funnel was indeed north-east and south-west. Perhaps if it had lain across the wind, the effect might have been different. But this I can give no certainty. It seems a matter proper to be referred to experiment. Possibly a turn-cap might have been serviceable, but I was not tried.

Chimneys have not been long in use in England. I saw a book printed in the time of queen Elizabeth, which remarked the then modern improvements of living, and mentioned among others the convenience of chimneys. "Our forefathers," said the author, "had no chimneys. There was in each dwelling house only one place for a fire, and the smoke went through a hole in the roof; but now there is scarce a gentleman's house in England that has not at least one chimney in it."—When there was but one chimney, its top might then be opened as a funnel, and perhaps, borrowing the form from the Venetians, it was then the flue of a chimney got that name. Such is now the growth of luxury, that in both England and France must have a chimney for every room, and in some houses every possessor of a chamber, and almost every servant, will have a fire; so that the flues being necessarily built in stacks, the opening of each as a funnel is impracticable. This change of manners soon consumed the firewood of England, and will soon render fuel extremely scarce and dear in France, if the use of coals be not introduced in the latter kingdom, as it has been in the former, where it at first met with opposition; for there is extant in the records of one of queen Elizabeth's parliaments, a motion made by a member, reciting, "Many dyers, brewers, smiths, and other artificers of London, had of late taken to the use of pitcoal for their fires, instead of wood, which filled the air with noxious vapours and smoke, very prejudicial to the health, particularly of persons coming out of the country; and therefore moving that a law might pass to prohibit the use of such fuel (at least during the session of parliament) by those artificers."—It seems it was then commonly used in private houses. Its supposed unwholesomeness was an objection. Luckily the inhabitants of Lon-

don have got over this objection, and think it rather contributes to the health of the air, as they have had no general pestilential disorder since the general use of coals, when, before it, such frequent fires still burnt wood at an enormous expense, continually augmenting, the inhabitants having still that prejudice to overcome. In Germany you are happy in the use of stoves, which save fuel wonderfully: your people are very ingenious in the management of fire; but they still learn something in that art from the Chinese,* whose country being greatly populous and fully cultivated, has little room for the growth of wood, and having not much other fuel that is good, have been forced upon many inventions during a course of ages, for making a little fire go as far as possible.

I have thus gone through the common causes of the smoking of chimneys that I can at present recollect as having fallen under my observation; communicating the remedies that I have known successfully used for the different cases, together with the principles on which both the disease and the remedy depend, and confessing my ignorance wherever I have been sensible of it. You will do well, if you publish, as you propose, this letter, to add in notes, or as you please, such observations as may have occurred to your attentive mind; and if other philosophers will do the same, this part of science, though humble, yet of great utility, may in time be perfected. For many years past, I have rarely met with a case of a smoky chimney, which has not been solvable on these principles, and cured by these remedies, where people have been willing to apply them; which is indeed not always the case; for many have prejudices in favour of the nostrums of pretending chimney doctors and fumists, and some have conceits and fancies of their own, which they rather choose to try, than to lengthen a funnel, alter the size of an opening, or admit air into a room, however necessary; for some are as much afraid of fresh air as persons in the hydrophobia are of fresh water. I myself had formerly this prejudice, this *aerophobia*, as I now account it, and dreading the supposed dangerous effects of cool air, I considered it as an enemy, and closed with extreme care every crevice in the rooms I inhabited. Experience has convinced me of my error. I now look upon fresh air as a friend: I even sleep with an open window. I am persuaded that no common air from without is so unwholesome as the air within a close room that has been often breathed and not changed. Moist air too, which formerly I thought pernicious, gives me now no apprehensions: for considering that no dampness of air applied to the outside of my skin can be equal to what

* See Notes at the end of this paper, No. III.

is applied to and touches it within, my whole body being full of moisture, and finding that I can lie two hours in a bath twice a week, covered with water, which certainly is much damper than any I can be, and this for years together, without catching cold, or being in any other manner disordered by it, I no longer dread mere moisture, either in air or in sheets or shirts: and I find it of importance to the happiness of life, the being freed from vain terrors, especially of objects which we are every day exposed inevitably to meet with. You physicians have of late happily discovered, after a contrary opinion had prevailed some ages, that fresh and cool air does good to persons in the small pox and other fevers. It is to be hoped, that in another century or two we may all find out, that it is as good for people in health. And as to moist air, here I am at present writing in a ship with about forty persons, who have had no other than moist air to breathe for six weeks past; every thing we touch is damp, and nothing dries, yet we are all as healthy as should be on the mountains of Switzerland, whose inhabitants are not more so than those of Bermuda or the Helena islands on whose rocks the waves are dashed into millions of particles, which fill the air with damp, but produce no diseases, the moisture being pure, unmixed with the poisonous vapours arising from putrid marshes and stagnant pools, in which many insects die and corrupt the water. These places only, in my opinion (which however I submit to yours) afford unwholesome air; and that it is not the mere damp contained in damp air, but the volatile particles of corrupted animal matter mixed with that water, which renders such air pernicious to those who breathe it. And I imagine it a cause of the same kind that renders the air in close rooms, where the perspirable matter is confined, and again by a number of persons, so hurtful to health. After being in such a situation, many find themselves attacked by that febricula, which the English alone call a cold, and perhaps from the name, imagine that they caught the malady by going out of the room, when it was in fact by being in it.

You begin to think that I wander from my subject, and go out of my depth. So I return again to my chimneys.

We have of late many lectures in experimental philosophy. I have wished that some of them would study this branch of that science, and give experiments on it as a part of their lectures. The addition to their present apparatus need not be very expensive. A number of little representations of rooms composed each of five panes of sash glass, framed in wood at the bottom, with proportionable doors, and moveable glass chimneys, with openings of different sizes, and different lengths of funnel, and

some of the rooms so contrived as to communicate on occasion with others, so as to form different combinations, and exemplify different cases; with quantities of green wax taper cut into pieces of an inch and half, sixteen of which stuck together in a square, and lit, would make a strong fire for a little glass chimney, and blown through would continue to burn and give smoke as long as the funnel. With such an apparatus all the operations of smoke and rarefied air in rooms and chimneys might be shown through their transparent sides; and the effect of wind on chimneys, commanded or otherwise, might be shown by letting the entering air blow upon a funnel through an opened window of the lecturer's chamber, where it would be constant while he kept a good fire in his chimney. By the help of such lectures our fumists would become better instructed. I present they have generally but one remedy, which perhaps they have known effectual in some one case of smoky chimneys, and they apply that indiscriminately to all the other causes, without success,—but not without expense to their employers.

With the science, however, that a man supposes himself possessed of in this article, he may sometimes meet with cases that may puzzle him. I once lodged in a house at London, which, in a little room, had a single chimney and funnel. The opening was very small, yet it did not keep in the smoke, and all attempts to have a fire in this room were fruitless. I could not imagine the reason, till at length observing that the chamber was it, which had no fire-place in it, was always filled with smoke, a fire was kindled below, and that the smoke came through the cracks and crevices of the wainscot; I had the wainscot taken down, and discovered that the funnel which stood up behind it, was a crack many feet in length, and wide enough to admit my arm, a very dangerous with regard to fire, and occasioned probably by an apparent irregular settling of one side of the house. The air entering this breach freely, destroyed the drawing force of the funnel. The remedy would have been, filling up the breach or rather rebuilding the funnel: but the landlord rather chose to stop up the chimney.

Another puzzling case I met at a friend's country house in London. In a room with a chimney in which, as I may be never could have a fire, for all the smoke came out into the room. I flattered myself I could easily find the cause, and prescribe the remedy. I had a fire made there, and found it as he said. I opened the door, and perceived it was not want of air. I made a temporary contraction of the opening of the chimney, and found that it was not its being so large that caused the smoke to

issue. I went out, looked up at the top of the chimney: its funnel joined to the stack with others, of them shorter, drew very well, I saw nothing to prevent doing the same, after every other examination I could think of, I obliged to own the insufficiency of my skill. My friend, who made no pretensions to such kind of knowledge, afterwards discovered it. He got to the top of the funnel by a ladder, and looking down, saw it filled with twigs and straw cemented by earth, and filled with feathers. He seems the house, after being built, stood empty some years before he occupied it; he concluded that some large birds had taken advantage of its retired situation for their nest there. The rubbish, considerable in quantity, being removed, and the funnel cleared, the chimney drew well and gave satisfaction.

General, smoke is a very tractable thing, easily governed, directed when one knows the principles, and well informed of the circumstances. You know I made it descend from my Pennsylvania stove. I formerly had a simple construction, in which the same effect was produced, but visible to the eye (Plate, figure 7.) It consisted of two plates A B and C D, placed as in the figure. The lower plate A was rested with its edge on the angle made by the hearth with the back of the chimney. The upper plate was fixed to the breast, and lapped over the lower about six inches wide and the length of the plates (near two feet) between them. Every other passage of air into the funnel was well stopped. When therefore a fire was made at E, for the first time with charcoal, till the fire in the funnel was heated through the plates, and then wood laid on, the smoke would rise at A, turn at the edge of that plate, descend to D, then turn under the edge of the upper plate, and go to the chimney. It was pretty to see, but of no great use. Placing therefore the under plate in a higher situation, I removed the upper plate C D, and placed it perpendicularly (Plate, figure 8) so that the upper edge of the lower plate A B came within about three inches of it, might be pushed farther from it, or suffered to come to it, by a moveable wedge between them. The flame then ascending from the fire at E, was carried to strike the upper plate, was very hot, its heat rose and spread the rarefied air into the room.

I believe you have seen in the contrivance of a sliding-plate over the fire, seemingly placed to prevent the rising of the smoke, leaving but a narrow passage for it, between the edge of the plate and the back of the chimney. I particularly described, and explained, in my former printed

letter, and mention it here only as another instance of the tractability of smoke.*

What is called the common chimney (See the Plate, facing page 396) affords an example of the same kind. The opening of the chimney is bricked up, with a fore-edge of jambs, leaving open only a passage over the grate of the same width, perhaps eight inches high. The grate consists of semicircular bars, their upper bar of the greatest diameter, the others under it smaller, smaller, as it is, the appearance of half a round basket. It is, with the coals it contains, wholly without the wall that shuts up the chimney, yet the smoke bends and its passage above it, the draft being strong, because no air can enter the chimney, obliged to pass near or through the fire, so that all that the funnel is filled with much heated, and of course much rarefied.

Much of the prosperity of a winter country depends on the plenty and cheapness of fuel, this is generally imagined. In travelling I have observed, that those parts where the inhabitants have neither wood, nor coal, nor turf, but are obliged to burn the working people live in miserable hovels, are ragged, and have nothing comfortable about them. But when fuel is cheap (or where they have the art of managing it to advantage) they are well furnished with necessaries, and have decent habitations. The obvious is, that the working hours of such people are the profitable hours, and they who afford sufficient fuel have fewer such hours in the twenty-four, than those who have it cheap and plenty: for much of the domestic work of poor women, such as spinning, sewing, knitting; and of the men in those manufactures that require little bodily labour, cannot well be performed where the fingers are numbed with cold; those people therefore, in cold weather, are induced to go to work earlier, and lie longer in the morning than they would do if they could have good fires or stoves to sit by; and their hours of work are sufficient to produce the means of comfortable subsistence. Those public works, therefore, such as roads, canals, &c. by which fuel may be brought cheap into such countries from distant places, are of great utility; and those who promote them may be reckoned among the benefactors of mankind.

I have great pleasure in having complied with your request, and in the reflection, that the friendship you honour me with, and in which I have ever been so happy, has continued many years without interruption. Our distance from each other is now augmented, and we must soon put an end to the possibility of continuing

correspondence: but if consciousness memory remain in a future state, my esteem and respect for you, my dear friend, everlasting. FRANKLIN.

Notes for the Letter — Chimneys.

No. 1.

THE latest work on architecture that I have seen, entitled *Nutschella*, which appears to be written by a very ingenious man, and contains a table of the proportions of the opening of chimneys; but they relate solely to the proportions he gives his rooms, without the smallest regard to the funnels. And he remarks, respecting these proportions, that they are similar to the harmonic divisions of a monochord.* He does not indeed lay much stress on this; but it shows that he like the appearance of principles; and where he has not true ones, he has a satisfaction in producing such an imaginary.

No. II.

The description of the sliding plate here promised, and which hath been since brought into use under various names, with some material changes, is contained in a former letter to James Bowdoin, Esq. as follows.

To James Bowdoin, Boston.

LONDON, Dec 2 1760

I HAVE executed here an apparatus, that I have long since had in contemplation, for keeping rooms warmer in cold weather than they generally are, and with less fire. It is this: the opening of the chimney is contracted, by brick-work faced with marble-labs, to about two feet between the jambs, and the breast brought down to within about three feet of the hearth. An iron frame is placed just under the breasts, extending quite to the back of the chimney, so that a plate of the metal may slide horizontally backwards and forwards in the grooves on each side of the frame. This plate is just as large as to fill the whole space, and shut the chimney entirely when thrust quite in, which is convenient when there is a fire. Drawing it out, it leaves a space between its further edge and the back, of about two inches; this space is sufficient for smoke to pass; and so large a part of the funnel being stopp'd by the rest of the plate, the draught of air out of the room, up the chimney, is obstructed and retarded, and by this means much cold air is prevented from coming in through crevices, and supply its place. This effect is made

in three ways. First, when the fire burns briskly in cold weather, the howling whistling noise made by the wind, as it enters the room through the crevices, when the chimney is open is usual, as soon as the plate is slid in to its proper distance. Secondly, opening the door of the room about half an inch, and holding your hand against the opening, the top of the door, you feel the cold air coming in against your hand, but weakly, if the plate be in. Let another person suddenly draw it out, and let the draught of the air go up the chimney, with its usual freedom where chimneys are open, and you directly feel the cold air rushing in strongly. Thirdly, if something be against the door, just sufficient, when the plate is in, to keep the door nearly shut, by resisting the pressure of the air that would force it open; then, when the plate is drawn out, the door will be forced open by the increased pressure of the outward cold air, endeavouring to get in, and supply the place of the warm air, that passes out of the room to go up the chimney. In our open chimneys, half the fuel is wasted, and its effect lost; the room has warmed being immediately drawn off. Several of my acquaintance, having seen this simple machine in my room, have imitated it at their own houses, and it seems likely to be pretty common. I describe it thus particularly to you, because I think it would be useful in Boston, where firing is often dear.

Reasoning chimneys puts me in mind of a property I formerly had occasion to observe in them, which I have not found taken notice of by others; it is, that in the summer time, when no fire is made in the chimneys, there is, nevertheless, a regular draft of air through them, continually passing upwards, from about five or six o'clock in the afternoon, till eight o'clock the next morning, when the current begins to slacken and heitates a little, for about half an hour, and then sets strongly down again, which continues to do so towards five in the afternoon, then slackens and heitates before, going sometimes a little up, then a little down, till, in about half an hour, it gets into a steady upward current for the night, which continues till eight or nine the next day, the hours varying a little as the days lengthen and shorten, and sometimes varying from sudden changes in the weather, as if, after being long warm, it should begin to grow cool about noon, while the air is coming down the chimney, the current will then change earlier than the usual hour, &c.

This property in chimneys I imagine might turn to some account, and render proper, for the future, the old saying, as useless as a chimney. If the opening of a chimney, from the breast down to the hearth, be closed by a slight moveable frame

* Upon comparing these proportions with those in the common divisions of the monochord, it happens that the first is minor, and although the second is a discord, it is nearest to the third minor, the third major, fifth the fourth, the sixth to fifth, the seventh to sixth. — NUTSHELLS.

or two, in the manner of doors, covered with canvass, that will let the air through, but keep out the flies: another little frame set within upon the hearth, with hooks on which to hang joints of meat, fowls, &c. a rapt wall of linen cloths, three or four fold, I think, that if the linen is kept wet, by sprinkling once a day, the meat would be so cooled by the evaporation, carried on continually by means of the passing air, that it would keep a week or more in the hottest weather. Butter and milk might likewise be kept cool, in or bottles covered with wet cloths. A shallow tray, or keeler, should under the frame to receive any water that might drip from the wetted cloths. I think, too, that this property of chimneys might, by means of smoke-jack vanes, be applied to some mechanical purposes, where a small but pretty constant power only is wanted.

If you would have my opinion of the of this changing current of air in chimneys, it is, short, follow. In time there generally a great difference in the warmth of the air mid-day and mid-night, and, of course, a difference of specific gravity the air, the it is warmed the more it is rarefied. The funnel of a chimney, being for the most part surrounded by the house, is protected, in a great measure, from the direct action of the sun's rays, and also from the coldness of the night air. thence preserves a middle temperature between the heat of the day and the coldness of the night. Thus middle temperature it communicates the air contained in it. If the of the outward air be cooler than that in the funnel of the chimney, will, by being heavier, force it rise, and go out at the top. What supplies place from below, being warmed, in its turn, by the warmer funnel, likewise forced up by the colder and weightier air below, and the current continued till the next day, when the gradually changes the state of outward air, makes it first warm as the funnel of the chimney can make it (when the current begins to hesitate) and afterwards warmer. The funnel, being cooler than the air that comes into it, cools that air, makes it heavier than the outward air, of course it descends; what succeeds it from above being cooled in its turn, the descending current continues till towards evening, when it again and changes its course, from change of warmth in the outward air, and the nearly remaining middle temperature in funnel.

Upon principle, if a house built Beacon-hill, an adit carried from one of doors into hill horizontally, till it meet with a perpendicular shaft sunk from its top, it seems probable me, that those who lived in the house would constantly, in the heat even of the calmest day, have as much cool air pass-

ing through houses, as they choose; the though reversed in current, during the stillest night.

I think, too, this property might be made of to miners; as, where several shafts or pits are sunk perpendicularly into the earth, communicating at bottom by horizontal passages, which is a common case, if a chimney of thirty or forty feet high built over of the shafts, or so near the shaft, that the chimney might communicate with the top of the shaft, all air being excluded but what should up or down by the shaft, a constant change of air would, by this means, be produced in the passages below, tending to the workmen from those damp which so frequently incommode them. For the fresh air would be almost always going down the open shaft, up the chimney, down the chimney, to the shaft. Let me add one observation more, which is, that if that part of the funnel of a chimney, which appears above the roof of a house, be pretty long, and have three of its sides exposed to the heat of the sun successively, viz. when he is in the east, in the south, and in the west, while the north is sheltered by the building from the cool northerly winds: such a chimney will be so heated by the sun, to continue the draft strongly upward, through the whole twenty-four hours, and often for many days together. If the outside of such a chimney be painted black, the effect will be still greater and the current stronger.

No. III.

is said the northern Chinese have a method of warming their ground floors, which is ingenious. These floors are made of tiles, a foot square and two inches thick, their corners being supported by bricks set on end, that are a foot long and four inches square; the tiles, too, join into each other, by ridges and hollows along their sides. This forms a hollow under the whole floor, which on side of the house has an opening into the air, where a fire is made, and it has a funnel rising from the other side to carry off the smoke. The fuel is a sulphurous pitcoal, the smell of which in the is thus avoided, while the floor, and of the room, is well warmed. But as the underside of the floor grows foul with soot, and a thick of prevents much of the direct application of the hot air to the tiles, I conceive burning the smoke, by obliging it to descend through coals, would in this construction very advantageous, a great heat would be given by the flame than by the smoke, and the floor being thereby kept free from soot would be heated with fire. For this purpose I would propose erecting the funnel close to the grate, so as to have only an iron plate between the the funnel, through which

plate, the air in the funnel being heated, it will be sure to draw well, and force the smoke to descend, [] the figure (Plate figure 9) where A is the funnel or chimney, [] the grate [] which the fire is placed, C one of the apertures through which the descending smoke is drawn into the channel D of figure 10, along which channel it is conveyed by a circuitous route, as designated by the arrows, until it arrives at the small aperture E, figure 10, through which it enters the funnel F G in both figures [] the [] plate against which the fire is made, which being heated thereby, will rarify the [] that part of the funnel, and cause the smoke to ascend rapidly. The flame thus dividing from the grate to the right and left, [] turning in passages, disposed as in figure 11, so as that every part of the floor may be visited by it before it enters the funnel F, by the two passages E E, very little of the heat will be lost and a winter room thus rendered very comfortable.

No IV

PAGE 404 For our imagination &c It is said the Icelanders have very little fuel, chiefly drift wood that comes upon their coast. To recieve more advantage from its heat, they make their door low, and have a stage round the room above the door, like a gallery, wherein the women sit and work, the men read or write, &c. The roof being [] the warm air is confined to it and kept from rising higher and escaping, and the cold [] which enters the house when the door is up, and cannot rise above the level of the top of the door, because it is heavier than the warm air above the door, and when in the gallery are not incommoded by it. [] our curiosity [] might have a stage constructed to make a temporary gallery above the room in winter, to be taken away in summer. Sedentary people would find much comfort there in cold weather.

No V

PAGE [] Where it is said [] of [] managing it, &c. [] house [] of the [] people among the northern nations of Europe, and among the poorer sort of Germans. In Pennsylvania, I have observed one construction, which appears very advantageous (Plate, figure 11) A is the kitchen with its chimney. B an stove in the stove room. In a [] the chimney, [] the stove through the back into the stove, [] put in fuel, and another hole above [] to let the smoke of the stove come back into the chimney. A room above the cooking is over the hearth, the kitchen chimney are put through the hole to supply the stove, so that there is seldom more than one fire burning at a time. In the floor over the stove room, is a small trap door, to let the [] rise occasionally into the chamber. Thus the whole house is warmed at [] ex-

pense of wood, and the stove-room kept constantly warm, [] in the coldest winter nights they can work late, and find the room still comfortable when they rise [] work early. An English farmer in America, who makes great fires in large open chimneys, needs the constant employment of one [] to cut and haul wood for supplying them, [] off cold air to them [] so strong, that the cheeks of his family are frozen while they are scorching their faces, and the room is never [] so that little sedentary work can be done by them in winter. The difference in this article alone of economy shall, in a course of years enable the German to buy out the Englishman and take possession of his plantation.

Miscellaneous Observations

CHIMNEYS whose funnels go up in the north wall of a house, and [] exposed [] the north winds [] apt to draw well as those [] a south wall because when rendered cold by these winds they draw down wards. Chimneys enclosed in the body of a house, are better than those whose funnels are exposed to cold walls.

Chimneys in stacks are apt to draw better than separate funnels, because the funnels, that have constant fires in them warm [] others in some degree, that have none.

One of the funnels, in a house I once occupied had a particular funnel joined to the summit of the stack [] that three of its sides were covered [] the sun in the [] of the day viz Plate figure 12) the [] and during the morning the south [] in the middle part of the day, and the west side [] during the forenoon while its north side was sheltered by the stack from the cold wind. This funnel [] from the [] and had a considerable height above the roof [] constantly in a strong draught [] cold night winter and

Blowing if it was exposed to the sun, would prove [] make them draw still stronger. In Part I saw a fire place so ingeniously contrived as to [] conveniently two [] order [] and [] The funnel [] the [] The fire-place [] of cast iron Plate figure 13) having [] right back A and two horizontal semicircular plates B C in which were ordered as to turn on [] pivots [] The plate B always stopped the [] the round funnel that was [] to [] without fire, while the other half of the funnel over the fire was always open [] this means a servant in the morning could make a fire [] the hearth [] then in the [] day, without disturbing the master by [] into his chamber, and the master, when [] could, with a touch of his foot, turn the chimney [] its pivot, and bring the [] his chamber, keep it there as long as he want

it, and again, when he went out in study. The room which had no fire in it was warmed by the heat coming through the back plate, and spreading in the room, as it could go up the chimney

Description of a Stove for burning of Pulcoal, and consuming of Smoke.—
Read in American Philosophical Society, January 23,

TOWARDS the end of the last century an ingenious French philosopher, whose name I am sorry I do not recollect, exhibited an experiment to show, that very offensive things might be burnt in the middle of a chamber such as woollen rags, feathers, &c. without creating the least smoke or smell. The machine in which he made, if I remember right, was of this form (see Plate, figure 1), made of plate iron. Some clear burning charcoals were put into the opening of the short tube A, and supported there by the grate B. The air, as soon as the tubes grew warm, would ascend in the longer leg C and go out at D, consequently air must enter at A descending to B. In this course it must be heated by the burning coals through which it passed, and rise more forcibly in the longer tube, in proportion to the degree of heat or rarefaction, and length of that tube. For such a machine is a kind of inverted syphon, and as the greater weight of water in the longer leg of a common syphon in descending is accompanied by an ascent of the same fluid in the shorter, so, in this inverted syphon, the greater quantity of levity of air in the longer leg, in rising, is accompanied by the descent of air in the shorter. The things to be burnt being laid on the hot coals at A, the smoke must descend through those coals, be converted into flame, which, after destroying the offensive smell, came out at the end of the longer tube heated air.

Whoever would repeat this experiment, must take care that the part A, B, of the tube, be quite full of burning coals, so that no part of the smoke may descend and be lost without going through them, being converted into flame; and that the longer tube be so heated that the current of ascending hot air is established in it before the things to be burnt are laid on the coals, otherwise there will be a disappointment.

It appears either in the *Memoirs of the Academy of Sciences*, or *Philosophical Transactions of the English Royal Society*, that no improvement was ever made of this ingenious experiment, by applying it to useful purposes. But there is a German book, entitled *Vulcanus Famulus*, by John George Leutmann, P. D. printed at Wurttemberg in 1723, which describes, among a great variety of other stoves for warming rooms, one, which

to have been formed on the same principle, and probably from the hint thereby given, though the French experiment is not mentioned. This book being scarce, I have translated the chapter describing the stove,

"Vulcanus Famulus, by John George Leutmann, P. D. Wurttemberg. 1723"

"CHAP. VII

Of a Stove, which draws down air.

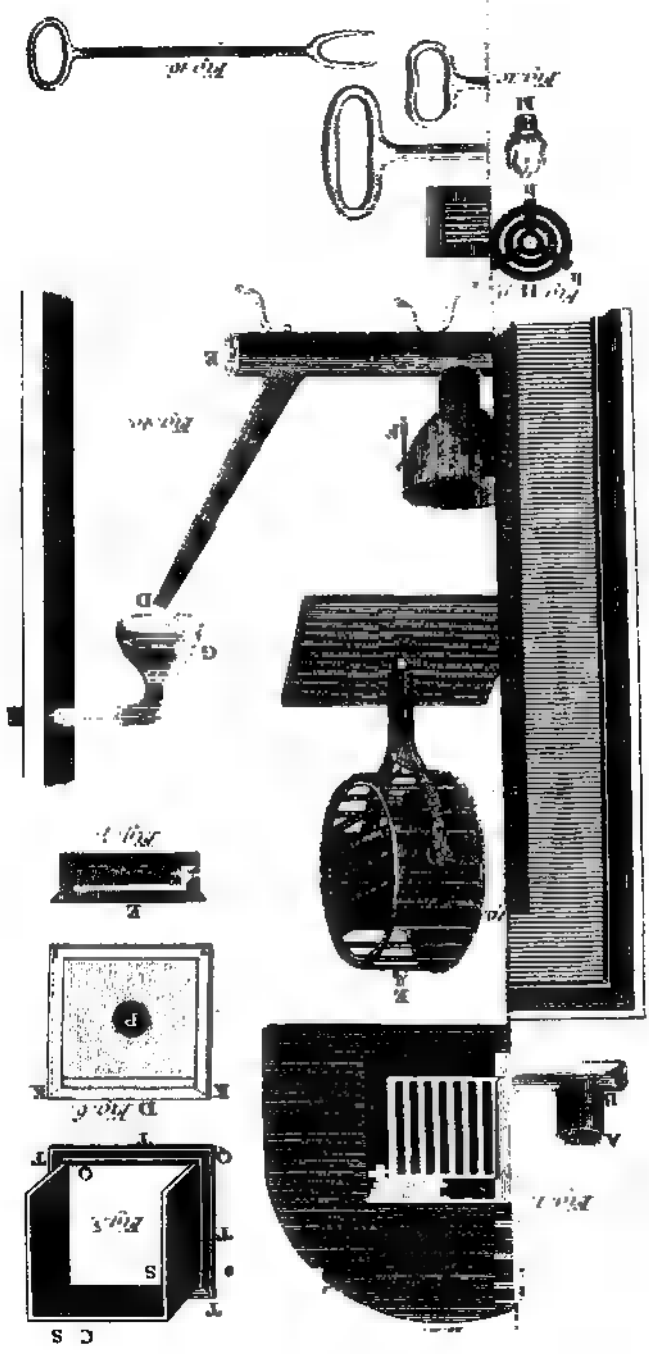
"This follows the description of a sort of stove, which easily removed and again replaced pleasure. This drives the fire down under itself, and gives no smoke, but however a very unwholesome vapour.

"In the figure, A is a vessel like a funnel, (Plate, figure 20.) in diameter the top about twelve inches, at the bottom near the grate about five inches, its height twelve inches. This is set on the barrel C, which is ten inches diameter and two feet long, closed at each end E. From one end rises a pipe or flue about four inches diameter, on which other pieces of pipe are set, which are gradually contracted to D, where the opening is but about two inches. These pipes must together be at least four feet high. B is an iron grate. F F are iron handles guarded with wood, by which the stove is to be lifted and moved. It stands on three legs. Care must be taken to stop well all the joints, that no smoke may leak through.

"When this stove is to be used, it must first be carried into the kitchen and placed in the chimney near the fire. There burning wood must be laid and left upon its grate till the barrel C is warm, and the smoke no longer rises at A, but descends towards C. Then it is to be carried into the room, which it is to warm. When the barrel C is warm, fresh wood may be thrown into the vessel A as often as one pleases, the flame descends, and without smoke, which is so consumed that only a vapour passes out of D.

"As this vapour is unwholesome, and affects the head, may be freed from it, by fixing in the wall of the room an inverted funnel, such as people are wont to hang lamps, through which their smoke goes out as through a chimney. This funnel carries the vapour cleverly, so that one is not unconvinced from it, though the opening be placed a span below the mouth of the said funnel G. The neck of the funnel is better when made gradually bending, than if turned in a right angle.

"The pressure of the draft downwards in the stove is the pressure of the outward air, which, going into the vessel A in a column of twelve inches diameter, finds only a resisting passage at the grate B, of five inches, and one D, of two inches, which are much too weak to drive it back again; besides, A stands



much higher than B, and so the pressure on it is greater and more forcible, and beats down the flame to the part where it finds the least resistance. Carrying the machine first to the kitchen fire for preparation, is on this account, that in the beginning the fire and smoke naturally ascend, the air in the close barrel C is made thinner by the warmth of that vessel heated, the air in B is rarefied then all the smoke and fire descends

"The wood should be thoroughly dry, and cut pieces five or six inches long, to fit it for being thrown into the funnel A." Thus far the German book.

It appears to ■■■ by ■■■ Leutmann's explanation of the operation of this machine, that he ■■■ understand the principles of it, whence I conclude he ■■■ not the inventor of it, and by the description of it, wherein the opening ■ A is made ■ large, and the pipe E, D, so short I am persuaded he never made nor ■■■ the experiment, for the first ought to be much smaller and the last much higher, or it hardly will succeed. The carrying it in the kitchen, too every time the fire should happen to be out, must be ■■ troublesome, that it is not likely ever to have ■■■ in practice, and probably has ■■■ been shown but as a philosophical experiment. The funnel for conveying the vapour out of the room would besides have been uncertain in its operation as a wind blowing against its mouth would drive the vapour back.

The above I am about to describe was also formed on the idea given by the French experiment, and completely carried into execution before I had any knowledge of the German invention, which I wonder should require so many years in a country, where men are so ingenious in the management of fire, without receiving long since the improvements I have given it.

Description of the Parts

A, the bottom plate which lies flat upon the hearth, with its partitions, 1, 2, 3, 4, 5, 6 (Plate, figure 2) that cast with it, and a groove Z, which slide, the bottom edges of small plates J, Y, figure 3 which plates meeting at close to the front

B 1, figure 3, is the _____ plate showing its under side, with the grooves 1, 2, 3, 4, 5, 6, to _____ the top edges of the partitions that are filed _____ the bottom plate. It shows also the grate W W, the bars of which are cast in the plate, and a groove V V, which _____ right over the groove Z Z, figure 2, receiving the upper edges of the small sliding plates Y Y, figure 12.

B 2, figure 4, shows the upper side of the same plate, with a square impression or groove receiving bottom mouldings T T T T

of the three-sided box C, figure 5 which cast in one piece

D, figure 6, ■ cover, showing its under side with grooves, to receive the upper edges of S S of the sides of C, figure 5, also a groove R, R, which when the ■ is put on comes right over another ■ in C, figure 5, between which it is ■ slide

Fig. 7, the front plate of the box

P, a hole three inches diameter through the cover D, figure 6, ■ which hole stands the vase F, figure 8, which has a corresponding hole two inches diameter through its bottom

The top of the vase opens at O, O, O, figure 8 and turns back upon a hinge behind when coals are to be put in, the vase has a grate with in it N of cast iron H, figure 9, and a hole in the top, a half inches diameter, to admit air, and the ornamental brass gilt flame M, figure 10, which stands on that hole, and, being itself hollow and open, suffers the fire to pass through into the fire

G. figure 11, is a drawer of plate iron, that slips in between the partitions 1 and 3, figure 2, to receive the falling ashes. It is concealed when the small sliding plates 1, Y, figure 12, are shut together.

1 f. 1. figure 8, is a niche built of brick in the chimney and plastered. It closes the chimney over the [] but leaves two [] [] one in each corner, communicating with [] bottom box k. k. figure 2

D. members of the Party

[illegible]

To fix this machine

Spread mortar on ■ hearth to bed the ■ plate A, then lay that plate level, equally ■ from each jamb, ■ project-

ing out as far as you think proper. Then putting some Windsor loam in the grooves of the cover B, lay that trying the sliding plates Y Y, see if they freely in the grooves Z Z, V V, designed them.

Then begin the niche, observing to leave the square corners of the chimney unfilled; for they are funnels. And observe also leave a free open communication between the passages K K, and the bottom of those funnels, mini close the chimney above the top of the niche, that no air may pass up that way. The concave back of the niche will on the circular iron partition A 1, figure 2, then with a little loam put on the box C the grate, the open side of the box in front.

Then, with loam three of its grooves. the grooves R R being left clean, and brought directly over groove Q Q in the box, put the D, trying the front plate E, see if it slides freely in those grooves.

Lastly, on the which has small holes in the moulding of its bottom to receive two iron pins that rise out of the plate at I I, for the better keeping it steady.

Then putting in the grate H, which rests on its three knobs h h against the inside of the vase, and slipping the drawer into its place; the machine is fit for use.

it.

Let the first fire be made after eight in the evening or before eight in the morning. for those and between those hours night, there is usually a draft up a chimney, though it has long been without; but between those hours in the day there is often, in a cold chimney, a draft downwards, when, if you attempt to kindle a fire, the smoke will into the

to certain of your proper time, hold a flame over air-hole at the top. If the flame drawn strongly down for a continu- without whiffing, you may begin to kindle a fire.

First put in a few charcoals on the grate H.

Lay sticks the charcoals.

Lay pieces of paper the sticks.

Kindle the paper with a candle.

Then shut down the top, and the air will pass down through the air-hole, blow the flame of the paper down through the sticks, kindle them, and their flame passing lower the charcoal.

charcoal well kindled, lay on the seaconls, observing to choke the fire by putting on much first.

The flame descending through the hole in the bottom of the vase, and that in plate D into the C, passes down farther through the grate W W in plate B I, then passes horizontally towards of the chimney; turning the right and left,

one part of it passes round the far end of the partition 2, then coming forward it turns round near end of partition 1, then moving backward it arrives the opening into the bottom of one of the upright corner funnels behind the niche, through which it and the chimney, thus heating that half of the box and that side of the niche. The other part of the divided flame passes round the end of partition 3, and the near end of partition 4, so into up the other corner funnel, thus heating the other half of box, the other side of the niche. The itself, the box C will also very hot, air surrounding them being heated, and rising as it cannot get into the chimney, it spreads into the room, colder air succeeding is warmed in its turn, rises and spreads, till by the final circulation the whole is warmed.

If you should have occasion to make your first fire hours not so convenient as those above mentioned, and when the chimney does not draw, do not begin in the but in or more of the passages of the lower plate, first covering the mouth of the After the chimney has drawn a while with the fire thus low, begins to be a little warm, you may close those passages and kindle another fire in the box C, leaving its sliding shutter a little open; and when you find after time that the chimney being warmed draws forcibly, you may shut that passage, open your vase, and kindle your fire there, as above directed. The chimney well warmed by the first day's fire will continue to draw constantly all winter, if fires made daily.

You will, in the management of your fire, have need of the following implements.

A pair of small light tongs, twelve fifteen inches long. plate. figure 13.

A light poker about the length with a flat broad point, figure 14.

rake to draw ashes of the passages of the lower plate, where the lighter kind escaping the ash-box will gather by degrees, perhaps in a week ten days require being removed, figure 15.

And a fork with its wide enough to slip on the neck of the cover, in order to raise and open it when hot, to put in coals figure

the management of this stove there certain precautions to observed, with attention, till they become habitual. To avoid the inconvenience of smoke, see the grate H be clear before you begin to light a fire. you find it clogged with cinders and ashes, turn it with your tongs and let them fall upon the grate below; the ashes go through it, and cinders may be raked off and returned into the vase when you would burn them. Then see that all the sliding plates in their place and close shut, that no air may

through ■■■ round opening ■■■ the top of the ■■■ And to avoid the inconvenience of dust from the ashes, let ■■■ ash drawer be taken out of the room to ■■■ emptied: and when you rake the passages, do ■■■ when the draft of the air is strong inwards, and put the ashes carefully into ■■■ ash-box, that remaining in ■■■ place.

If, being about ■■■ abroad, you would prevent your fire burning in your absence, you may do it by taking the brass flame from the top of the vase, ■■■ covering the passage with a round tin plate, which will prevent the entry of more air than barely sufficient to keep a few of the coals alive. When you return, though ■■■ hours absent, by taking off the tin plate and admitting the air, your fire will ■■■ be recovered.

The effect of this machine, well managed, is to burn ■■■ only the coals, but all the smoke of the coals, ■■■ that while the fire is burning, if you go out and observe the top of your chimney, you will ■■■ no smoke is-uing, nor any thing but clear ■■■ air, which ■■■ usual makes the bodies ■■■ through it appear ■■■ viding.

But let ■■■ imagine from this, that it may be a cure for bad ■■■ &c chimneys, much less, that as it burns the smoke it may be used in a room that has no chimney. It is, by the help of a good chimney, the lighter, the better, that it produces ■■■ effect; and though a fine of plate iron sufficiently high might be raised in a very lofty room, this management to prevent ■■■ disagreeable vapour would be too rare for common practice, and small errors would have unpleasant consequences.

It is certain that clean iron yields no offensive smell when heated. Whatever of ■■■ kind you perceive where there are iron stoves, proceeds therefore from some foulness, burning or fuming ■■■ their surface. They should therefore ■■■ be spit upon, or greased, nor should any dust be suffered to lie upon them. But ■■■ the greatest care will not always prevent these things, it is well once a week to wash the stoves with soap lees and a brush, rinsing it with clean water.

The Advantages of this Stove.

1. The chimney does not grow foul, nor ever need sweeping; for ■■■ no smoke enters it, no ■■■ can form in it.

2. The air heated over ■■■ fires instantly quits the room and goes up the chimney with the smoke; but in the stove, it is obliged to descend in flame and pass through the long winding horizontal passages, communicating ■■■ heat to a body of iron plate, which, having thus ■■■ to receive the heat, communicates the same to the air of the room, and thereby warms it to ■■■ greater degree.

■■■ The whole of the fuel is consumed by being turned ■■■ flame, and you have ■■■ bene-

fit of its heat, whereas in common chimneys a great part goes away in smoke which you see as it rises, but it affords you no rays of warmth. One may obtain ■■■ of the quantity of fuel thus wasted ■■■ smoke, by reflecting on the quantity of ■■■ that a few weeks firing will lodge against the sides of the chimney, and yet this is formed only of those particles of the column of smoke that happen ■■■ touch the sides in its ascent. How much more must have passed off ■■■ the air! And we know that this root is still fuel: for it will burn ■■■ flame as such, and when hard caked together is indeed very like and almost ■■■ solid ■■■ the coal it proceeds from. The destruction of your fuel goes on nearly in the ■■■ quantity whether in smoke or in flame; but there is no comparison in the difference of heat given. Observe when fresh coals ■■■ first put on your fire, what a body of smoke ■■■ This smoke is for a long time too cold to take flame. If you then plunge a burning candle ■■■ it, the candle instead of inflaming the smoke will instantly be itself extinguished. Smoke must have a certain degree of heat to be inflammable. As soon as it has acquired that degree, the approach of a candle will inflame the whole body, and you will be very sensible of the difference of the heat it gives. A still ■■■ experiment may be made with the candle itself ■■■ your hand ■■■ the side of ■■■ flame, and observe the heat it gives, then blow it out, the ■■■ remaining ■■■ the same place, and observe what heat may be given by the smoke that rises from the still burning snuff. You will ■■■ it very little. And yet that smoke has in it the substance of so much flame, and ■■■ instantly produce it, if you hold another candle above it ■■■ to kindle ■■■ Now the smoke from the fire in coal-burns on this stove, instead of ascending and leaving the fire while too cold to burn, being obliged ■■■ descend through the burning coals, ■■■ among them that degree of heat which ■■■ vents it into flame, and the heat of that flame is communicated to the air of the room, as above explained.

4. The flame from the fresh coals laid on in this stove, descending through the coals already ignited, preserves them long from ■■■ suming, and continues them in the state of red coals ■■■ long as the flame continues that surrounds them, by which means the fires made in this stove ■■■ of much longer duration than in any other, and fewer coals are thereby necessary for a day. This is a very material advantage indeed. That flame should be a kind of pickle, ■■■ preserve burning coals from consuming, may seem a paradox to many, and very unlikely ■■■ be true, as it appeared to me the first time I observed the fact. I must therefore relate the circumstances, and shall mention an easy experiment, by which my reader may be ■■■ possession of every thing

necessary to the understanding of it. In the first trial I made of this kind of stove, which I constructed of thin plate iron, I had instead of the vase a kind of inverted pyramid like a mill-bopper; and fearing at first that the small grate contained in it might be clogged by cinders, and the flame of the flame sometimes obstructed, I ordered a little door near the grate, by means of which I might on occasion clear it: though after the stove was made, and before I tried it, I began to think this precaution superfluous, from an imagination, that the flame being contracted in the narrow part where the grate was placed, would be more powerful in consuming what it should meet with, and that any cinders between or near the bars would presently destroyed and the passage opened. After the stove was fixed and in action, I had a pleasure and then in opening that door a little, to see through the crevice how the flame descended among the red coals, and observing once a single coal lodged on the bars in the middle of the focus, a fancy took me to observe with my watch in how short a time it would be consumed. I looked at it long without perceiving it to be at all diminished, which surprised me greatly. At length it occurred to me, that I and many others had seen the same thing thousands of times, in the conservation of the red coal formed in the snuff of a burning candle which while enveloped in flame, and thereby prevented from the contact of passing air, is long continued, and augments instead of diminishing, so that we are often obliged to remove it by the snuffers, or bend it out of the flame into the air, where it consumes presently to ashes. I then supposed, that to consume a body by fire, passing air was necessary to receive and carry off the separated particles of the body: and that the air passing in the flame of my stove, and in the flame of a candle, being already saturated with such particles, could not receive more, and therefore the coal undiminished as long as the outward air was prevented from coming to it by the surrounding flame, which kept it in a situation somewhat like that of charcoal in a well luted crucible, which, though long kept in a strong fire, comes out consumed.

An easy experiment will satisfy any one of this conserving power of flame enveloping red coal. Take a small stick of deal or other wood the size of a goose-quill, and hold it horizontally and steadily in the flame of the candle above the wick, without touching it, but in the body of the flame. The wood will first be inflamed, and burn beyond the edge of the flame of the candle, perhaps a quarter of an inch. When the flame of the wood goes out, it will leave a red coal at the end of the stick, part of which will be in the flame of the candle, and part in the air. In a

minute or two you will perceive the coal in the air diminish gradually, so as to form a neck; while the part in the flame continues of its first size, and at the neck being quite consumed it drops off: and by rolling it between your fingers when extinguished you will find it still a solid coal.

However, as one cannot be always putting on fresh fuel in this stove to furnish a continual flame as is done in a candle, the air in the intervals of time gets at the red coals and consumes them. Yet the conservation while it lasted, so much delayed the consumption of the coals, that two fires, one made in the morning, and the other in the afternoon, each made by only a handful of coals, were sufficient to keep my writing room about ten feet square and ten high, warm a whole day. The fire kindled at in the morning would burn till noon; and all the iron of the machine with the walls of the niche being thereby heated, the fire kept till evening, when another smaller fire kindled, kept it warm till midnight.

Instead of the sliding plate E, which shuts the front of the box C, I sometimes used another which had a pane of glass, or, which is better, of Muscovy tale, that the flame might be seen descending from the bottom of the vase and passing in a column through the box C, into the cavities of the bottom plate, like water falling from a funnel, admirable to such as are not acquainted with the nature of the machine, and in itself a pleasing spectacle.

Every utensil, however properly contrived to serve its purpose, requires practice before it can be used skilfully. Put into the hands of a man for the first time a gimblet or a hammer (very simple instruments) and tell him the use of them, he shall neither bore a hole nor drive a nail with the dexterity and success of another who has been accustomed to handle them. The beginner therefore the use of this machine, will do well not to be discouraged with little accidents that may arise at first from his want of experience. Being somewhat complex, it requires, as already said, a variety of attentions; habit will render them unnecessary. And the studious man who is much in his chamber, and has a pleasure in managing his own fire, will soon find this machine comfortable and delightful. To others who leave their fires to the care of ignorant servants, I do not recommend it. They will with difficulty acquire the knowledge necessary, and will make frequent blunders that will fill your room with smoke. It is therefore by no means fit for common use in families. It may be advisable to begin with the flaming kind of stone coal, which is large, and, not caking together, is not so apt to clog the grate. After some experience, any kind of coal may be used, and with this advantage, that no smell, from

the most sulphurous **18** come into your room, the current of air being constantly into the vase, where too that smell is all consumed.

This form was chosen as being elegant in itself, and very proper for burning of coals: where wood is the usual fuel, and must be burned in pieces of some length, a long square grate may be substituted, in which A is the cover opening by a hinge behind, B the grate, C the **19** with its divisions as in the other, D the plan of the chest, **20** the long narrow grate. (Plate, figure 17.) This I have not tried, but the vase machine was completed in 1771, and used by **21** in London three winters, and **22** afterwards in America, much to my satisfaction; and I have not yet thought of any improvement it may be capable of, though such may occur to others. For common use, while in France, I have contrived another grate for coals, which has in part the same property of burning the smoke and preserving the red coals longer by the flame, though not so completely as in the vase, yet sufficiently to be very useful, which I **23** now describe as follows.

A, is a round grate, one foot (French) in diameter, and eight inches deep between the **24** and the back; (Plate, figure 18.) the sides and back of the plate iron; the sides having **25** of half an inch diameter distant three or four inches from each other, to let in air for enlivening the fire. The back with **26** holes. The sides do not meet at top nor at bottom by eight inches: that square is **27** ed by grates of small bars crossing front **28** back to let in air below, and let out the smoke **29** flame above. The three middle bars of **30** grate are fixed, the upper and lower may be taken out and put in at pleasure, when hot, with a pair of pincers. This round grate turns upon an axis, supported by the crochet B, the **31** of which is an inverted conical tube five inches deep, which comes on **32** any inches upon a pin that fits it, and which is fixed upright in a cast iron plate D, that lies upon the hearth: in the middle of the top and bottom grates are fixed small upright pieces **33** E about an inch high, which, as the whole is turned on its axis, stop it when the grate **34** perpendicular. Figure **35** is another view of the same machine.

In making the **36** fire in a morning with this grate, there **37** nothing particular to be observed. It is made as in other grates, the coals being put in above, after taking out the upper bar, **38** replacing it when they are in. The round figure of the fire when thoroughly kindled is agreeable, **39** represents the great giver of warmth to our system. As it **40** down and leaves a vacancy above, which you would fill with fresh coals, the upper bar is to be taken out, and afterwards replaced. The **41** coals, **42** grate **43** in the same position, will throw **44** as usual

a body of thick smoke. **45** every one **46** turned to coal fires in **47** grates **48** have observed, that pieces of **49** coal stuck in below among the red coals have their smoke so heated as that it becomes flame as fast as it **50** is produced, which **51** rises among the coals and enlivens the appearance of the fire. Here then is the use of this swivel grate. By a push with your tongs or poker, you **52** it on its pin till it faces the back of the chimney, then turn it over on its axis gently till it again faces the room, whereby all the fresh coals will be found under the live coals, and the greater part of the smoke arising from the fresh coals will in its passage through the live ones be heated so **53** be converted into flame: whence you have much more heat from them, and your red coals are longer preserved from consuming. I conceive this construction, though not so complete a consumer of all the smoke as **54** vase, yet **55** be fitter for common use, and very advantageous. It gives too a **56** sight of the fire, always a pleasing object, which **57** have **58** the other. It may with a touch be turned more or less from any one of the company that desires to have less of its heat, or prevented full to one just **59** out of the cold. And supported in a horizontal position, a tea-kettle may be boiled on it.

The author's description of his Pennsylvania fire-place, first published in 1744, having **60** into the hands of workmen **61** Europe, who did not, it seems, well comprehend the principles of that machine, it was much disfigured in their imitations of it; and one of **62** main intentions, that of admitting a sufficient quantity of fresh air warmed in entering through the air-box, nearly defeated, by a pretended improvement, in lessening **63** passages to make more room for coals in a grate. On pretence of such improvements, they obtained patents for the invention, and for a while made great profits by the sale, till the public became sensible of that defect in the expected operation. If the same thing should be attempted with this vase stove, it will be well for the buyer to examine thoroughly such pretended improvements, lest, being the **64** productions of ignorance, they diminish or defeat the advantages of the machine, **65** produce inconvenience **66** disappointment.

The method of burning smoke, by obliging it to descend through hot coals, may be of great use in heating the walls of a hot-house. In **67** way, **68** horizontal passages, or **69** are made to go and return in those walls, lose a great deal of their **70** they come to be foul with soot; for a **71** blanket-like lining of soot prevents much of the hot air from touching and heating the brick work in **72** passage, so that more fire must be made as the flue grows fouler: **73** by burning the smoke they are kept always

clean. The same method may also be of great advantage to those businesses in which large coppers or caldrons are to be heated.

Written at Sea, 1765.

To Miss Stephenson.

Method of Contracting Chimneys. Modesty in Disputation.

CHURCH-STREET, BOUTIQUE evening, post 10.

THE question you ask me is very sensible one, and I shall be glad if I can give you a satisfactory answer. There are two ways of contracting a chimney; one by contracting the opening before the fire; the other, by contracting the funnel above the fire. If the funnel above the fire is left open in its full dimensions, and the opening before the fire is contracted; then the coals, I imagine, will burn faster, because the air is directed through the fire, in a stronger stream; the air which would pass over it, and on each side of it, now passing through it. This is seen in narrow stove chimneys, when a sack-bell or blower is used, which still more contracts the narrow opening.—But if the funnel only above the fire is contracted, then, as a less stream of air is passing up the chimney, less must pass through the fire, and consequently it should seem that the consuming of the coals would rather be checked than

increased by such contraction. And this will also be the case, when both the opening before the fire, and the funnel above the fire are contracted, provided the funnel above the fire is more contracted in proportion than the opening before the fire.—So you see I think you are the best of the argument; and as you notwithstanding gave it up in compliance to the company, I think you had also the best of the dispute. There are few, though convinced, that know how to give up, they have been once engaged in maintaining; there is therefore the more merit in dropping a point where one thinks one's self right; it is at least respectful to those one is in dispute with. And indeed all our knowledge is so imperfect, and we are a thousand times perpetually subject to error, that positiveness can scarce ever become even the most knowing; and modesty in advancing any opinion, however plain and true we may suppose it, is always decent, and generally more likely to procure Pope's rule

To speak, though sure, with seeming diffidence, is therefore a good one; and if I had ever seen in your conversation the least deviation from it, I earnestly recommend it to your observation.—I am, &c.

B. FRANKLIN.

POLITICAL ECONOMY.

ESSAYS.

On Population.

Concerning the Increase of Mankind, propoing of Countries, &c.—Written in Pennsylvania. 1751

1. TABLES of the proportion of marriages to births, of deaths to births, of marriages to the number of inhabitants, &c. formed ■ observations made upon the bills of mortality, christenings, &c. of populous cities, will not suit countries; ■ will tables formed on observations made ■ full settled old countries, as Europe, suit ■ countries, as America.

2. For people increase in proportion to the number of marriages, and that ■ greater in proportion to the ease and convenience of supporting ■ family. When families can be easily supported, ■ persons marry, and earlier in life.

3. In cities, where all trades, occupations, and offices, are full, many delay marrying, till they can see how ■ bear the charges of a family; which charges ■ greater in cities, as luxury is ■ common: many live single during life, and continue servants to families, journeymen ■ trade, &c. Hence cities do not, by natural generation, supply themselves with inhabitants; the deaths are ■ than the births.

4. In countries full settled, the ■ must be nearly the same, all lands being occupied and unproved to the height; those who cannot get land, ■ labour for others that have it; when labourers ■ plenty, their wages will be low; by low wages a family is supported with difficulty; this difficulty deters many from marriage, who therefore long continue servants and single. Only ■ the cities take supplies of people from the country, and thereby make a little ■ room in the country, marriage is ■ little ■ encouraged there, and the ■ exceed the deaths.

5. Great part of Europe is fully settled with husbandmen, manufacturers, &c. and therefore ■ now much increase in people. America ■ chiefly occupied by Indians, who subsist mostly by hunting. But as the hunter, of all ■ requires the greatest quantity

of land from whence ■ draw his subsistence. (the husbandman subsisting on much less, ■ gardener on still less, and the manufacturer requiring least of all) the Europeans found America as fully settled, as it well could be by hunters; yet these, having large tracts, were easily prevailed on to part with portions of territory to the new-comers, who ■ not much interfere with the natives in hunting, and furnished them with many things they wanted.

6. Land being thus plenty in America, and so cheap, as that ■ labouring man, who understands husbandry, can, in a short time, save money enough to purchase ■ piece of ■ land, sufficient for a plantation, whereon he may subsist a family; such are not afraid ■ marry; for if they even look far enough forward to consider how their children, when grown up, are to be provided for, they see, that more land is to be had at rates equally easy, all circumstances considered.

7. Hence marriages in America ■ more general, and ■ generally early, than in Europe. And if it is reckoned here, that there is but one marriage per ■ among ■ hundred persons, perhaps ■ may here reckon two; and if ■ Europe, they have but four births to a marriage, (many of their marriages being late,) we may here reckon eight, of which, if one half grow up, and our marriages are made, reckoning ■ with another, at twenty years ■ of age, ■ people must ■ least be doubled every twenty years.

8. But notwithstanding this increase, ■ vast is the territory of North America, that it will require many ages to settle it fully, and till it is fully settled, labour will never be cheap here, where no ■ continues long a labourer for others, but gets a plantation of his own; no man continues long a journeyman to a trade, but goes among those ■ settlers, ■ up for himself, &c. Hence labour is no cheaper now, in Pennsylvania, than ■ thirty years ago, though so many thousand labouring people have been imported from Germany and Ireland.

■ The danger, therefore, of those colonies

interfering with their mother country in trades, that depend on labour, manufactures, &c. is too remote to require the attention of Great Britain.

10. But, in proportion to the increase of the colonies, a vast demand is growing for manufactures; a glorious market, wholly in the power of Britain, in which foreigners cannot interfere, which will increase, in a short time, even beyond her power of supplying, though her whole should be to her colonies—

12. It is an ill grounded opinion, that by slaves, America may possibly vie in cheapness of manufactures with Britain. The labour of slaves can never be so cheap here, as the labour of working men is in Britain. Any one may compute it. Interest of money is in the colonies from 5 to 10 per cent. Slaves, can with another, cost 30*l*. sterling per head. Reckon then the interest of the first purchase of a slave, the insurance or risk on his life, his clothing and diet, expenses of his sickness, and of time, lost by neglect of business, (neglect is natural to man, who is not benefited by his own care or diligence) expense of a driver to keep him at work, and his pilfering from time to time, almost every slave being, the of slavery, a thief, compare the whole with the wages of a manufacturer of iron or wool in England, you will find that labour is much cheaper there than it ever can be by slaves here. Why then will Americans purchase slaves? Because slaves may be kept as long as one pleases, or has occasion for their labour, while hired men are continually leaving their (often in the midst of his business) and setting up for themselves. § 8.

13. As the increase of people depends on the encouragement of marriages, the following things diminish a nation, 1. The being conquered: for conquerors will, as many offices, and as much tribute profit on the labour of the conquered, as will maintain them in their establishment; and this diminishing the substance of the natives discourages marriages, and so gradually diminishes them, while the foreigners increase. 2. Loss of territory: thus the Britons, being driven into Wales, and crowded together in a barren country, insufficient to support such great numbers, diminished, till the people bore a proportion to the produce; while the Saxons increased on their lands, till the became full of English. And, were English now into Wales by foreign nation, there would, in a few years, be no more English in Britain, now people in Wales. Loss of trade: manufactures, exported, draw subsistence from foreign countries for numbers, who are thereby enabled to

marry and the nation be deprived of any branch of trade, no new employment is found for the people occupied in that branch, it will soon be deprived of so many people. 4. Loss of food: suppose a nation has a fishery, which not only employs great numbers, but makes the food and subsistence of the people cheaper: if another nation becomes master of the sea, and prevents the fishery, the people will diminish in proportion as the loss of employ and dearthness of provision makes it difficult to

family. 5. government insecure property: people not only leave such a country, and, settling abroad, incorporate with other nations, lose their native language, and become foreigners; but the industry of those remain being discouraged, quantity of subsistence in the country is lessened, and the support of a family becomes more difficult. So heavy taxes tend to diminish a people. 6. The introduction of slaves: the negroes brought into the English sugar islands have greatly diminished the whites there; the poor by this deprived of employment, while a few families acquire vast estates, which they spend on foreign luxuries; educating their children in the habit of those luxuries, the same income is needed for the support of one, that might have maintained one hundred. The whites, who have slaves, not labouring, are enfeebled, and therefore generally prolific; the slaves being worked too hard, ill fed, their constitutions are broken, and the deaths among them are more than the births; so that a continual supply is needed from Africa. The northern colonies, having few slaves, increase in whites. Slaves also perjure the families that them; white children become proud, disgusted with labour, and, being educated in idleness are rendered unfit to get a living by industry.

14. Hence the prince, that acquires territory, if he finds it vacant, or removes the natives give his people room;—the legislator, that makes effectual laws for promoting of trade, increasing employment, improving land by better tillage, providing more food by fisheries, securing property, &c., the new trades, arts, manufactures, or improvements in husbandry, may properly fathers of their nation, as they are the of the generation of multitudes, by the management they to marriage.

As to privileges granted to the married, (such as the *jus trium liberorum* among the Romans) they may hasten the filling of a country, that has been thinned by war or pestilence, otherwise territory cannot increase a people beyond the means provided for their subsistence.

Foreign luxuries, and needless

factures, imported ■ used in ■ nation, do, by ■ same reasoning, increase ■ people of ■ nation, ■ them, and diminish the people of ■ nation, ■ Laws, therefore, ■ prevent such importations, and ■ contrary, promote the ■ portation of manufactures ■ consumed in foreign countries, may ■ called (with respect ■ the people ■ make them) *generative laws*, ■ by increasing subsistence, they encourage marriage. ■ laws, likewise, strengthen ■ country doubly, by increasing its own people, and diminishing its neighbours.

17. Some European nations prudently refuse to consume the manufactures of East India:—they ■ them to their colonies; for the gain to the merchant is not to be compared with the loss, by this means, of people ■ the nation.

18. Home luxury in the great, ■ the nation's manufactures employed by it, who are many, ■ only tends ■ diminish the families that indulge in it, who ■ few. The greater the common fashionable expense of any rank of people, the ■ cautious they are of marriage. Therefore luxury should never be suffered to become ■

19. The great increase of offspring in particular families is not always owing to greater fecundity of nature, but sometimes to examples of industry in the heads, and industrious education, by which the children are enabled to provide better for themselves, and their marrying early is encouraged from the prospect of good subsistence.

20. If there be ■ sect, therefore, in our ■ tion, that regards frugality and industry ■ religious duties, and educate their children therein, more than others commonly do, such sect must consequently increase ■ by ■ tural generation ■ any other sect in Britain.

21. The importation of foreigners into ■ country, that ■ many inhabitants ■ the present ■ employments and provisions for subsistence will bear, will be in the end no increase of people, unless the ■ have more industry and frugality than the natives, and then they will provide ■ subsistence, and increase in the country; but they will gradually ■ the natives out.—Nor is it ■ cessary to bring in foreigners ■ fill up any occasional vacancy in a country; for such vacancy (if the laws are good, § 14, 16) will soon be filled by ■ generation. Who can now ■ vacancy made in Sweden, France, or other warlike nations, by the plague of herolism 40 years ago; in France, by the expulsion of ■ Protestants; in England, by the settlement of her colonies; or in Guinea, by ■ hundred years exportation of slaves, ■ has blackened half America! The thinness of the ■ in Spain ■ owing to national pride, and idleness, ■ other ■ rather than to

the expulsion of the Moors, or to the making of new settlements.

22. There is, in short, no bound to the prolific nature of plants or animals, but what is ■ by their crowding ■ interfering with each other's means of subsistence. Were the face of the earth vacant of other plants, it might be gradually ■ and ■ spread with one kind only, as for instance, with fennel; ■ were it empty of other inhabitants, ■ might, in a few ages, be replenished from ■ only, as for instance, with Englishmen. Thus there are supposed to be now upwards of one million of English souls in North America (though it is thought scarce 80,000 have been brought over ■) and yet perhaps there is not one the fewer in Britain, but rather many more, on account of the employment the colonies afford to manufactures at home. This million doubling, suppose ■ in twenty-five years, will, in another century, ■ more than the people of England, and the greatest number of Englishmen will be on ■ side the water. What an accession of power ■ the British empire by sea ■ well as land! What increase of trade and navigation! What numbers of ships and seamen! We have been here but little more than ■ hundred years, and yet the force of our privateers in the late war, united, was greater, both in ■ and guns, than that of the whole ■ navy in queen Elizabeth's time. How important ■ affair then to Britain is the present treaty* for settling the bounds between her colonies ■ the French! and how careful should she be to ■ room enough, since on the room depends ■ much the increase of her people!

23. In fine, a nation well regulated ■ like a polypus,† take away a limb, ■ place is soon supplied; cut it ■ two. ■ each deficient part shall speedily grow out of the part remaining. Thus, if you have ■ and subsistence enough, ■ you may say, by dividing, make ten polypuses out of one, you may, of one, make ■ nations, equally populous and powerful; or, rather, increase a nation ten ■ in numbers and strength.

R. Jackson, of London. ■ Dr. Franklin.

Review on some of the foregoing Observations

DEAR SIR.—It is ■ three years since I received your excellent *Observations on the Increase of Mankind*, &c. in which you have with so much sagacity and accuracy shown in what manner, and by what causes, ■ principal means of political grandeur is best promoted; and have so well supported ■ just inferences you have occasionally

* The treaty ■ Utrecht, ■ 1763.

† A water insect, well ■ naturalists

drawn, concerning the general of our American colonies, the views and conduct of some of the inhabitants of Great Britain.

You have abundantly proved, that natural fecundity is hardly to be considered, because the *vis generandi*, as far as we know, is unlimited, because experience shows, that numbers of nations is altogether governed by collateral and among these none of so much force quantity of subsistence, whether arising from climate, soil, improvement of tillage, trade, fisheries, property, conquest of new countries, or other favourable circumstances.

As I perfectly concurred with you in your sentiments on heads, I have been very desirous of building somewhat the foundation you have there laid; and induced, by your hints in the twenty-first section, trouble you with thoughts on the influence manners have always had, and always likely to have, the numbers of a people, and their political prosperity in general.

The end of every individual is its own private good. The rules it observes in the pursuit of this good are a system of propositions, almost every founded authority, that is, derive their weight from the credit given to one more persons, and from demonstration.

And this, in the most important as well as the other affairs of life, is the case even of the wisest and philosophical part of the human species; and that it should be so is the less strange, when we consider, that it is perhaps impossible to prove, that *being*, or life itself, any other value than what is set on it by authority.

A confirmation of this may be derived from the observation, that, every country the universe, happiness is sought upon a different plan; and, in the country, we it placed by different ages, professions, and ranks of men, in attainment of enjoyments utterly unlike.

These propositions, as well as others framed upon them, become habitual by degrees, and, they govern the determination of the will, I call them *moral habits*.

There another of habits, that have the direction of the members of the body, that I call therefore *mechanical habits*. These compose what we commonly call the *arts*, which are more less liberal or mechanical, as they more less partake of assistance the operations of the mind.

The *cumulus* of the moral habits of each individual the manners of that individual: the *cumulus* of the operations of individuals up the manners of a nation.

The happiness of individuals is evidently

the ultimate end of political society; political welfare, strength, splendour, opulence of the state, have been always admitted, both by political writers, and valuable part of mankind in general, to conduce to this end, and are therefore desirable.

The that advance or obstruct any one of these three objects, external or internal. The latter may be divided into physical, civil, and personal, under which I comprehend the moral and mechanical habits of mankind. The physical causes are principally climate, soil, and number of persons; the civil, government laws; political welfare is always in a ratio composed of the force of these particular causes: a multitude of external all these internal ones, only control and qualify, but constantly acting and thereby insensibly, well sensibly, altering other, both for the better and the worse, and not excepting the climate itself.

The powerful efficacy of manners increasing a people is manifest from the instance you mention, the quakers: among them industry and frugality multiply and extend the use of the necessities of life; to manners of a like kind are owing the populousness of Holland, Switzerland, China, Japan, and parts of Hindustan, &c. every one of which, the force of extent of territory and fertility of soil is multiplied, their want compensated by industry and frugality.

Neither nature nor have contributed much to the production of subsistence in Switzerland, yet we see frugality preserves and even increases families, that live on their fortunes, and which, in England, we call the gentry; and the observation we cannot but make in the southern part of this kingdom, that those families, including all superior ones, are gradually becoming extinct, affords the clearest proof, that luxury (that a greater expense of subsistence than in prudence a ought to consume) is destructive as a disproportionable want of it: but in Scotland, Switzerland, the gentry, though with another they have not one fourth of the income, increase in number.

And here I cannot help remarking, by the bye, how well founded your distinction between the increase of mankind in old and new settled countries in general, and more particularly in the of families of condition. America, where the expenses more confined necessities, and those are cheap, is common see above persons descended from one living old man. In England, it frequently happens, where a has seven, eight, more children, there has not been a descendant in the generation, occasioned by the difficulties number of children has brought the

family, in a luxurious dear country, and which have prevented their marrying.

is more owing to luxury than want, appears from what I have said of Scotland, plainly from parts of England remote from London, in which the necessities of life are nearly as dear, in dearer London, yet people of ranks marry and up children.

Again; among the lower ranks of life, produce so few children servants. This is, attributed to their situation, which hinders marriage, but is also to be attributed to their luxury and corruption of manners, which is greater than among any other of people in England, and is the consequence of a view of the lives and persons of a superior rank, than any inferior rank, without a proper education, ought to have.

The quantity of substance in England unquestionably become greater for several ages; if inhabitants are more numerous, they certainly are in proportion our improvement of the of support. I am apt to think there are few parts of this kingdom, that have not been at some former time more populous than at present. I have several cogent for thinking so of a great part of the counties I am most intimately acquainted with; but as they probably not all populous the same time, and of our towns visibly and vastly grown in bulk, I dare suppose, judicious men have done, that England is peopled than heretofore.

The growth of our towns is the effect of a change of manners, and improvement of arts, common to all Europe; and though it is imagined, that it has lessened the country growth of necessities, it has evidently, by introducing a greater consumption of them, (an infallible consequence of a nation's dwelling in towns) counteracted the effects of our prodigious advances in the arts.

But however frugality may supply the place, prodigality counteract the effects, of the natural acquired subsistence of a country, industry is, beyond doubt, a efficacious of plenty than any natural advantage of extent fertility. I have mentioned instances of frugality and industry united with extent and fertility. In Spain and Asia Minor, frugality joined to extent and fertility, without industry; in Ireland, once saw the Scotland had then none of them but frugality. The change these two countries obvious every one, and it is owing industry not yet very widely ed either. The effects of industry and frugality in England surprising: the rent and the value of the inheritance of depend on them greatly than on nature.

this, though there no considerable difference in the prices of our markets. Land of equal goodness lets the of other land lying in the same country, there are many years purchase difference between different counties, where are equally well paid and

Thus manners operate upon the number of inhabitants, but of their silent upon a civil constitution, history, even own experience, yields of proofs, though they are uncommonly attributed to external causes: their support of a government against external force is so great, that it is a maxim among the of liberty, that free dissolved, overcome, before the manners of its subjects are

The superiority of Greece Persia singly owing to their of manners; and that, though natural advantages the side of the latter, which I might add the civil ones; for though the greatest of all civil advantages, liberty, on the of Greece, yet that added no political strength to her, other than it operated her and, when they were corrupted, the restoration of their liberty by the Romans, overturned the of their power.

Whether the manners of ancient Rome at any period calculated to promote the happiness of individuals, it is not my design to examine; but that their and the effects of those manners on their government and public conduct, founded, enlarged, and supported, and afterwards overthrew their empire, is beyond all doubt. One of the effects of their conquest furnishes us with a strong proof, how prevalent are even beyond the quantity of substance; for, when the custom of bestowing the citizens of Rome corn enough to support themselves and families, become established, and Egypt and Sicily produced the grain that the inhabitants of Italy, this became less populous every day, and the *jus trivni liberorum* was but an expedient, that could not balance the want of industry and frugality.

But corruption of did only turn the inhabitants of the Roman empire, but it rendered the remainder incapable of defence, long before its fall, perhaps before the dissolution of the republic; so that without standing disciplined armies, composed of men, whose moral habits principally, mechanical habits secondarily, made them different from the body of the people, the Roman empire had been a prey to the barbarians many ages before

By the mechanical habits of the soldiery, I mean their discipline, and the art of war; and that this is but a secondary quality, from the inequality that has in all ages been between though well disciplined armies,

voyage is now proposed, to visit a distant people on the other side of the globe; not to cheat them, not to rob them, not to seize their lands, or enslave their persons; but merely to do them good, and make them, as far as our power will, live as comfortably as ourselves.

"It seems to be the wish, that all nations of the earth were connected by a knowledge of each other; a mutual exchange of benefits: but a commercial nation particularly wishes for a general civilization of mankind, since trade is always carried on to much greater extent with people who have the arts and conveniences of life, than it can be with savages. We may therefore hope, in this undertaking, to be of some service to our country as well as to those poor people, who, however distant from us, are in some degree related to those whose interest do, in some degree, every one who may say, *Homo sum, &c.*"

Schemes of a voyage, by subscription, to convey the various kinds of life, as fowls, hogs, goats, cattle, corn, iron, &c., to those remote regions, which are destitute of them, and to bring from thence such productions, as can be cultivated in this kingdom to the advantage of society, in a ship under the command of Alexander Dalrymple.

Cost of a ship, from the coal trade,
of 350 tons, estimated at about £2000
Extra expenses, stores, boats, &c. - - 3000
To be manned with 60 men at 4l.
per man, per month. - - -

12

per ton 2380

Wages and provisions for 3 years - - -

Cargo included, supposed - - - £15000

The expenses of this expedition are calculated for three years: but the greatest part of the amount of wages will be wanted for the ship returns, a great part of the expense of provisions will be saved by what is obtained in the course of the voyage, by barter, or otherwise, though it is necessary to make provision for contingencies.

Dr. Percival.

Concerning the provision made in China against Famine.

I HAVE somewhere read, that in China an account is yearly taken of the number of people, and the quantities of provision produced. This account is transmitted to the emperor, whose ministers can thence foresee a scarcity,

likely to happen in any province, and from what province it can be supplied in good time. To facilitate the collecting of this account, to prevent the necessity of entering houses, and spending time in asking and answering questions, each house is furnished with a little board, to be hung without the door during the summer each year; on these boards are marked certain words, against which the inhabitant is to mark the number and quantity, somewhat in the following manner.

Second.
Women,
Children,
Rice, or Wheat,
Flesh, &c.

Under sixteen are accounted children, and all above, are accounted adults. Any other particulars, which the government desires information of, are occasionally marked on the same boards. Thus the officers, appointed to collect the accounts in each district, have only to pass before the doors, and enter into their book what they find marked on the board without giving the least trouble to the family. There is a penalty on marking falsely, and the neighbours know nearly the truth of each other's account, they dare not expose themselves, by a false one, to each other's suspicion. Perhaps such a regulation is scarcely practicable with us.

Positions to be examined, concerning national Wealth.

1. All food or subsistence for mankind from the earth or waters.
2. Necessaries of life, that are not food, and other conveniences, have their value estimated by the proportion of food consumed while we are employed in procuring them.
3. A small people, with a large territory, may subsist on the productions of nature, without other labour than that of gathering the vegetables and catching the animals.
4. A large people, with a small territory, finds these insufficient, and, to subsist, must labour the earth, to make it produce greater quantities of vegetable food, suitable to the nourishment of men, and of the animals they intend to use.
5. From labour arises a great increase of vegetable and animal food, and of materials for clothing, as flax, wool, silk, &c. The superfluity of these is wealth. This wealth may pay for the labour employed in building houses, cities, &c. which is only subsistence thus consumed.

■ *Manufactures* — only another shape — which so much provisions and subsistence are turned, as were equal in value to the manufactures produced. This appears from hence, that ■ manufacturer does not, in fact, obtain from the employer, for his labour, ■ than a mere subsistence, including raiment, fuel, and shelter: all which derive their value from the provisions consumed ■ procuring them.

7. The produce of the earth, thus converted into manufactures, may ■ easily carried ■ distant markets than before such ■

9. *Fair commerce* is, where equal values are exchanged for equal, the expense of transport included. Thus, if it costs A in England ■ much labour and charge to raise ■ bushel of wheat, as it costs B in France to produce four gallons of wine, then ■ four gallons of wine the fair exchange for a bushel of wheat, A and ■ meeting at half distance with their commodities to make the exchange. The advantage of this is ■ that each party increases the number of his enjoyments, having, instead of wheat alone, or wine alone, the use of both wheat and wine.

8. Where the labour and expense of producing both commodities are known to both parties, bargains will generally be fair and equal. Where they are known to one party only, bargains will often be unequal, knowledge taking its advantage of ignorance.

10. Thus he, that carries one thousand bushels of wheat abroad ■ sell, may not probably obtain so great a profit thereon, as if he had first turned the wheat into manufactures, by subsisting therewith the workmen while producing those manufactures: since there ■ many expediting and facilitating methods of working, not generally known: and strangers ■ the manufactures, though they know pretty well the ■ of raising wheat, ■ unacquainted with those short methods of working, and thence, being apt ■ suppose more labour employed in the manufactures than there really is, ■ easily imposed on in their value, and induced to allow ■ for them than they ■ honestly worth.

11. Thus the advantage of having manufactures in a country does not consist, as is commonly supposed, in their highly advancing the value of rough materials, of which they ■ formed; since, though sixpennyworth of flax may be worth twenty shillings when worked into lace, yet the very ■ of its being worth twenty shillings, ■ that, besides the flax, it ■ nineteen shillings and sixpence in subsistence to the manufacturer. But the advantage of manufactures is, that under their shape provisions may be more easily carried to a foreign market; and by their means ■ traders may ■ easily cheat strangers. Few, where it is ■ made, are judges of the value of lace. The importer may demand

forty, and perhaps get thirty shillings for that, ■ cost him but twenty.

12. Finally, there ■ to ■ but three ways for a nation to acquire wealth. The first ■ by war, as the Romans did, by plundering their conquered neighbours. This is robbery.—The second by commerce, which ■ generally cheating.—The third by agriculture, the only honest way, wherein man receives a real increase of the seed thrown into the ground, in a kind of continual miracle wrought by the hand of God in ■ favour, ■ a reward for his innocent life, and his virtuous industry. ■ FRANKLIN.

April 4, 1760.

The following extract of a letter signed Columba and addressed to the editors of ■ British Repository for select Papers on Agriculture, Arts, and Manufactures — Vol. I. I will prepare those who read it for the next paper.

"GENTLEMEN.—There is now publishing in France a periodical work, called *Ephéméride du Citoyen*, in which several points, interesting to those concerned in agriculture, are from time to time discussed by able hands. In looking over one of the volumes of this work a few days ago, I found a little piece written by one of our country men, and which ■ signals itself by having been taken from the *London Chronicle* in 1760. The author is a gentleman well known to every man of letters in Europe, and perhaps there is none, in this ■ whom mankind in general are more indebted.

"That this piece may not be lost to ■ on a country like you will give it a place in your Repository. It was written in favour of the farmers, when they suffered so much abuse in our public papers, and were ■ p'ndered by the mode in many places."

To Messieurs the Public.

On the Price of Corn and the Management of the Poor.

I ■ one of that class of people, that feeds you all, and ■ present abused by you all:—in short, I am a farmer.

By your newspapers we are told, that God ■ sent a very short harvest to ■ other countries of Europe. I thought this might be in favour of Old England; ■ that now we should get a good price for ■ grain, which would bring millions among us, and make us flow in money: that to be ■ scarce enough.

But the wisdom of government forbade the exportation.

Well, says I, then we must be content with the market price ■ home.

No; say my lords the mob, you sha'n't have that. Bring your corn to market if you dare:—we'll sell it for you, for less money, or take it for nothing.

Being thus attacked by both ends of the constitution, ■ head and tail of government, what am I to do?

■ I keep my ■ in the barn, to feed and increase the breed of rats!—be it so; they cannot be less thankful than those I've been used to feed.

Are we [] the only people to be grudged the profits of our honest labour?—And why? One of the late scribblers against us gives a bill of fare of the provisions at my daughter's wedding, and proclaims to all [] world, that we had the insolence to eat beef and pudding!—Has he not read the precept in the good book, *thou shalt not muzzle the mouth of the ox that treadeth out the corn*; or does [] think us less worthy of good living than [] oxen?

O, but the manufacturers! the manufacturers! they are [] favoured, and they must have bread at a [] rate!

Hark ye, [] Oaf!—The farmers live splendidly, you [] And pray, would you have [] the money they get? Their fine clothes and furniture, do they make these themselves, or for [] another, and so keep the money among them! Or, do they employ these your darling manufacturers, and [] scatter it again all [] the nation?

The wool would produce us a better price, if it [] suffered to go [] foreign markets; but that, Messieurs the Public, your laws will not permit. It must be kept all at home, that our dear manufacturers may have it the cheaper. And then, having yourselves thus lessened our encouragement for raising sheep, you curse us for the scarcity of mutton!

I have heard my grandfather say, that [] farmers submitted to the prohibition on the exportation of wool, being made to expect and believe, that when the manufacturer bought his wool cheaper, they should also have their cloth cheaper. But the deuce a bit. It has been growing dearer and dearer from that day [] this. Hm so! Why, truly, the cloth is exported; and that keeps up the price.

Now if it be a good principle, that the exportation of a commodity [] to [] restrained, that [] people at home may have it the cheaper; stick to [] principle, and go thorough stitch with it. Prohibit the exportation of your cloth, your leather, and shoes, your iron-ware, and [] manufactures of all sorts, to make them all cheaper at home. And cheap enough they will be, I will warrant you—till people leave off making them.

Some folks seem [] think they ought never to be easy till England becomes another Lubberland, where it [] fancied [] streets [] paved with penny-rolls, the houses tiled with pancakes, and chickens, ready roasted, cry, come []

I say, when you are sure you have got [] good principle, stick to it, and carry it through.—I hear it is said, that though it was necessary and right for the ministry to advise a prohibition of the exportation of corn, yet [] was contrary [] law; [] also, that though it was contrary to law for the mob to obstruct [] yet [] was necessary and right. And the same thing to a tittle. Now they tell me,

an act of indemnity ought to pass in favour of the ministry, to secure [] from the consequence of having acted illegally.—If so, [] another in favour of the [] Others say, some of the mob ought to be hanged, by way of example.—If so,—but I say no more than I have said before, *when you are sure that you have a good principle, go through with it.*

You say, poor labourers [] to buy bread [] a [] price, unless they had higher wages.—Possibly.—But how shall [] farmers be able [] afford [] labourers higher wages, if you will not allow us to get, when we might have it, a higher price for our corn?

By all that I can learn, [] should [] least have had a guinea a quarter more if the exportation had been allowed. And this money England would have got [] foreigners.

But, it seems, [] farmers [] take so much less, that the poor may have [] so much cheaper.

This operates then [] tax for [] maintenance of the poor. A very good thing, you will say. But I ask, why a partial tax! why [] on [] farmers only! If [] be a good thing, pray, messieurs the Public, take your share of it, by indemnifying us a little out of [] public treasury. In doing a good thing, there is both honour and pleasure—you are welcome to your share of both.

For my own part, I [] [] well satisfied of the goodness of this thing. I am for doing [] good to the poor, but I differ [] opinion about the means. I think the best way of doing good to the poor, is, not making them easy in poverty, but leading [] driving them out of it. In my youth I travelled much, and I observed in different countries, that the more public provisions were made for the poor the less they provided for themselves, and of course became poorer. And on the contrary, the less [] done for them, the more they did for themselves, and became richer. There [] country in the world where [] many provisions are established [] them; so many hospitals to receive them when they [] sick [] lame, funded [] maintained by voluntary charities; [] many almshouses [] the aged of both [] together with a solemn general law made by the rich to subject their estates to a heavy tax for the support of the poor. Under all these obligations, [] our poor modest, humble, and thankful! And do they use their best endeavours [] maintain themselves, [] lighten [] shoulders of this burden? On the contrary, I affirm, that there is no country in the world in which the poor are more idle, dissolute, drunken, and insolent. The day you passed that act you took away from before their eyes [] great [] of all inducements to industry, frugality, and sobriety, by giving them a dependence on somewhat else than a careful accumulation during youth [] health, for support in [] or sickness. In

hort, you offered a premium for the encouragement of idleness, you not now wonder, that it has had its effect in the increase of poverty. Repeal that law, you will soon see a change in their manners; *Saint Monday* and *Saint Tuesday*, will soon cease to be holidays. Six days shall thou labour, though one of thy commandments long treated as out of date, will again be looked upon as respect; industry will increase, and with it plenty among the lower people; their circumstances will mend, and more will be done for their happiness by urging them to provide themselves, than could be done by dividing your among them.

members of the Public, if upon this interesting subject, I put you to the trouble of reading a little of my nonsense; I am sure I have lately read a great deal of yours, and therefore from you (at least from those of you who are writers) I deserve a little indulgence.—I am yours, &c. ARATOR.*

On Freedom of Speech and the Press.—Published in the Pennsylvania Gazette, of November, 1787.

of speech is a principal pillar of a free government: when support is taken away, the constitution of a free society is dissolved, and tyranny is erected on its ruins. Republics and limited monarchies derive their strength and vigour from a popular examination into the actions of the magistrates; this privilege in all ages has been, and always will be abused. The best of men could not escape the censure and envy of the they live in. Yet this evil is as great as it may appear at first sight. A magistrate who sincerely aims at the good of society, will always have the inclinations of a great majority on his side, and an impartial posterity will not fail to render him justice.

Those abuses of the freedom of speech, are the exercises of liberty. They ought to be repressed; but to whom dare we commit the care of doing it. An evil magistrate intrusted with power to punish for words, would be armed with a weapon the most destructive and terrible. Under pretence of pruning off the exuberant branches he would be apt to destroy the tree.

It is certain, that he who robs another of his moral reputation, merits gibbet that if he had plundered him of his money on the highway. Augustus Cæsar, under a specious pretext of preserving

character of the Romans from defamation, made the law whereby libelling was involved in the penalties of treason against the tyrannical law of the tyrannical, and for one mischief which it prevented, thousand evils, horrible afflictions, sprung up in its place. Thenceforward every person's fortune depended on the vile breath of informers. The construction of words being arbitrary, and left to the decision of the judges, no man could write or open his mouth without being in danger of forfeiting his head.

One was put to death for inserting in his history, praises of Brutus. Another for styling Cæsar the last of the Romans. Iugula valued himself for being a notable dancer; and a deny, excelled that manly accomplishment, high treason. This emperor raised the name of which was *Incultus*, to the dignity of consul; and though history is silent, I do not question but it was a capital crime, to show the least contempt for that high officer of state! Suppose then any one had called a pruned minister a stupid animal, the emperor's might argue, that the malice of the libel was the more aggravated by its being true; and consequently more likely to excite the family of this illustrious magistrate to a breach of the peace, or to acts of revenge. Such a prosecution would us appear ridiculous; yet, we may rely upon tradition, there have been formerly, proconsuls in America, though more malicious dispositions, hardly superior in understanding to the consul *Incultus*, and who would have thought themselves libelled to be called by their proper name.

Vero piqued himself on his fine voice and still in music: a laudable ambition! He performed in public, and carried the prize of excellence: it afterwards resolved by the judges a good law, that whosoever would insinuate the least doubt of Nero's pre-eminence in the noble art of singing, ought to be deemed a traitor to the state.

By the help of inferences, and insinuations, treasons multiplied in a prodigious manner. Grief was treason: a lady of noble birth was put to death for bemoaning the death of her murdered husband: silence declared an overt act, to prove the purpose of the heart: was construed into treason: a poor aspect an evidence, that the person was pleased with calamities: a befalling emperor: a severe thoughtful countenance was urged against the man that wore it, as a proof of his plotting against the state: dreams were often made capital offences. A species of informers went about Rome, manumating themselves companies out their dreams, which holy priests, (O nefarious wickedness!) interpreted as signs. The Romans were so terrified by this strange of

* Mr. Owen Ruff head, being employed in preparing a digest of the British poor laws, communicated a copy of it to Dr. Franklin for his advice. Dr. Franklin recommended, that provision should be made for the printing on a sheet of paper, superseding, in each parish, accounts of every disbursement and receipt of its officers. In the American states this measure is pursued.

juridical and penal process, that far from discovering their dreams, they durst not own that they slept. ■ this terrible situation, when every one ■ much ■ fear, even fear itself was made a crime. Caligula, when he put his brother to death, gave ■ reason to the senate, that the youth was afraid of being murdered. To be eminent in any virtue, either civil ■ military, ■ the greatest crime ■ could ■ guilty of.—O vir-
■ certissimum exitium.

These were some of the effects of the Ro- ■ against libelling:—those of the British kings that ■ despotic power, or the oppression of the subject, continually encouraged prosecutions for words.

Henry VII. a prince mighty in politics, procured that act to be passed, whereby the jurisdiction of the star-chamber, was confirmed ■ extended. Afterwards Empson and Dudley, ■ voracious dogs of prey, under the protection of this high court, exercised the ■ merciless ■ of oppression. The subjects were terrified from uttering their griefs, while they ■ the thunder of the star-chamber pointed at their heads. This caution, however, could ■ prevent several danger- ■ tumults and insurrections: for when the tongues of the people ■ restrained, they commonly discharge the ■ resentments by a more dangerous organ, ■ break out into open ■ of violence.

During ■ reign of Henry VIII. a high-spirited monarch! every light expression, which happened to displease him, ■ construed by his supple judges, into a libel, and sometimes extended to high treason. When queen Mary of cruel memory ascended the throne, the parliament, in order ■ raise a fence against the violent prosecutions for words, which had rendered ■ lives, liberties, and properties of ■ men precarious, and, perhaps dreading the furious persecuting spirit of this princess, passed an act whereby it was declared, "Thall if a libeller doth go so high, as to ■ against king ■ queen, by denunciation, the judges shall lay ■ greater fine ■ him than ■ hundred pounds, with two months imprisonment, and so corporeal punishment: neither was ■ to be passed ■ him, except ■ accusation was fully proved by two witnesses, who ■ produce ■ of their good demeanour for ■ credit of their report."

This act was confirmed by another, in ■ seventh year of the reign of queen Elizabeth; only the penalties ■ heightened ■ two hundred pounds ■ three months imprisonment. Notwithstanding ■ rarely punished invectives, though the malice of ■ papists ■ indefatigable in ■ the brightest characters, with the most impudent falsehoods, she was often heard to applaud that recscript

of Theodosius.* If any person spoke ill of the emperor, through a foolish rashness, and inadvertency, it is to be despised: if out of madness, it demands pity; if from malice and aversion, it calls for mercy.

Her successor king James I. ■ a prince of a quite different genius and disposition; he used to say, that while he had the power of making judges and bishops, he could have what law and gospel he pleased. Accordingly he filled those places with such ■ prostituted their professions ■ his notions of prerogative. Among this number, and I hope it is no discredit to the profession of the law, ■ its great oracles, sir ■ Coke, ■ The star-chamber, which in the time of Elizabeth, had gained a good repute, became ■ intolerable grievance, in ■ reign of this learned monarch.

But it did ■ arrive ■ its meridian altitude, ■ Charles I. began to wield the sceptre. As he ■ formed a design ■ lay aside parliaments, and subvert the popular part of the constitution, he very well knew, that the form of government could not be altered, without laying a restraint ■ freedom of speech, and the liberty of the press: therefore he issued his royal mandate, under the great seal of England, whereby he commanded his subjects, ■ der pain of his displeasure, not to prescribe to him any time for parliaments. Lord Clarendon, upon this occasion, is pleased ■ write "that all men took themselves ■ be prohibited under the penalty of ■ (the censure of the star-chamber,) which few men cared to incur so much as to speak of parliaments; or so much ■ to mention, that parliaments were again to be called."

The king's ministers, to let the nation see they were ■ determined to suppress all freedom of speech, caused a prosecution to ■ carried ■ by the attorney-general against three members of the house of ■ for words spoken in that house, Anno. 1624. The member pleaded to the information, that expressions in parliament ought only to be examined and punished there. This notwithstanding, they ■ three condemned ■ disturbers of the ■; ■ of these gentlemen, sir John Elliot, ■ fined two thousand pounds, and sentenced ■ lie in prison till it ■ paid. ■ lady ■ denied admittance

* *Et quis imperatori male-dixerit ■ injuria commisit et ■ panis; sed distinguatur, an ex levitate processerit, ■ an ■ in- ■ et maledictionis digna commiserit, ■ injuria ■ ■*

Note.—A Recscript was an ■ delivered by the ■, when consulted in ■ question or point in law ■ wholly to ■ directed by it, whenever ■ came ■ before them. ■ the seal of the King signifying to ■ law. (Faintness in the original figure) ■ fundamental principle in ■ The recscript mentioned above, was only delivered by ■ but by ■ Honsius and Brachius.

to him, even during his sickness; consequently his punishment comprehended an additional _____ of divorce. The patriot having endured many years imprisonment, sunk under the oppression, and died in prison: this was _____ authority and rights of parliament, that even after _____ restoration, the judgment was reversed by parliament.

That Englishmen of [] might be effectively intimidated from publishing their thoughts on any subject, except [] the side of [] court, [] majesty's ministers caused an information, for several libels, to be exhibited in [] star-chamber, against Messrs. *Prynne, Burton,* and [] They [] each of them fined five thousand pounds, and adjudged [] their [] pillory, [] be branded on the cheeks with hot iron, and to suffer perpetual imprisonment! Thus these three gentlemen, each of worth and quality in their several professions, [] divinity, law, [] physic, [] for no other offence, than writing on controverted points of church-government, exposed on public scaffolds, and stigmatized and mutilated, [] common signal rogues, or [] most ordinary malefactors.

Such corporal punishments, inflicted with all the circumstances of cruelty and infamy, bound down ■ other gentlemen, under a servile fear of the like treatment; so that for several years no one durst publicly speak ■ write in defence of the liberties of the people; which the kung's ministers, his privy council, ■ judges, had tramped under their feet. The spirit of the administration looked hideous and dreadful: the hate and resentment which the people conceived against it, for a long time lay smothered in their breasts, where those passions festered and grew venomous, and at last discharged themselves by an armed and vindictive hand.

King Charles II. aimed at the subversion of the government ; but concealed his designs under a deep hypocrisy : a method which his predecessor, in the beginning of his reign, scorned to make use of. The father, who affected a high rigid gravity, discountenanced all barefaced immorality. The son, of gay, luxurious disposition, openly encouraged it : thus their inclinations being different, the restraint he put upon others, and the encouragement given to others, were managed in a different manner.

reign a licenser was appointed for stage and the press; no plays were encouraged but what had a tendency to bowse the minds of the people. The original design of comedy was perverted; it appeared in all the shocking circumstances of immodest drollery, obscure description, and low representation. Johnson was sneered out of countenance, public spirit ridiculed as an unwomanish passion, and virtue; the fine gentleman of the comedy, though embowelled

over with wit, ■■■■■■ debauchee; and ■■■■■■ fine lady, though ■■■■■■ off with a ■■■■■■ imagination, was ■■■■■■ impudent ■■■■■■ quiette. Nature, which in the hands *Horace*, *Juvenal*, and *Boileau*, was pointed with a generous ■■■■■■ against vice, now became the declared foe of virtue and innocence. ■■■■■■ the city of London, ■■■■■■ ages, ■■■■■■ well as ■■■■■■ we are speaking of, was remarkable for its opposition to arbitrary power, the poets ■■■■■■ all their ■■■■■■ lery against the metropolis, in order ■■■■■■ bring the citizens into contempt: ■■■■■■ alderman ■■■■■■ introduced on the theatre, but under ■■■■■■ complicated character of ■■■■■■ sneaking, canting hypocrite; ■■■■■■ miser and ■■■■■■ cuckold; while the court-wit, with impunity, ■■■■■■ the most valuable part of the nation. Other writers, of a ■■■■■■ stamp, with great learning ■■■■■■ gravity, ■■■■■■ disavoured to prove ■■■■■■ the ■■■■■■ people, that slavery was *jure divino*. Thus the stage and the press under the direction of a licenser, became battering engines against religion, virtue, and liberty. Those who ■■■■■■ courage enough ■■■■■■ write ■■■■■■ their defence, were stigmatised as schismatics, and punished ■■■■■■ disturbers of the government.

But when the embargo on wit was taken off, *our Richard Steele* and *Mrs. Addison* soon rescued the stage from the load of impropriety it laboured under; with an inimitable address, they strongly recommended to our imitation the amiable, rational, manly character; and this with so much success, that I suppose there is any reader to day conversant in the writings of those gentlemen, that can taste with any tolerable relish the comedies of the once admired *Shadwell*. Vice obliged to retire and give place to virtue: this will always be the consequence when truth plays: falsehood only attacks, and cries out for auxiliaries: truth never fears the encounter: she overcomes the aid of the bar arm, and triumphs by her natural strength.

But to the description of the reign of Charles II. the doctrine of servitude chiefly managed by sir Roger Lestrange. He had great advantages in the argument, being licensor for the press, and might have carried all before him, without contradiction, if writings on the other side of the question had not been printed by stealth. The authors, whenever found, were prosecuted as seditious libellers; on all these occasions, the king's counsel, particularly Sawyer Finck, appeared most abjectly obsequious to accomplish the ends of the court.

During this *blended* management, the king entered into a secret league with France, to render himself absolute, and enslave his subjects. This fact was discovered to the world by doctor *Jonathan Swift*, to whom *sir William Temple* intrusted the publication of his works.

Sidney, the sworn enemy of tyranny, was a gentleman of noble family, of sublime understanding, and undiminished courage. The ministry were resolved to remove so great an obstacle out of the way of their designs. He was prosecuted for high treason. The overt act charged in the indictment, was a libel found in his private study. Mr. Finch, the king's own solicitor-general, urged, with great vehemency, to this effect, "that the imagining the death of the king is treason, while the imagination remains concealed in the mind; though the law cannot punish such secret treasonable thoughts, till it arrives at the knowledge of them by some overt act. The matter of the libel composed by Sidney was an imagining how to compass the death of king Charles II.; and the writing of it was an overt act of the treason; for that to write was to act. (*Scribere est agere.*") It seems that the king's counsel in this reign had not received the same direction as queen Elizabeth had given her's; she told them they were to look upon themselves as retained not so much—(*pro domina regina, as pro domini veritate*)—for the power of the queen as for the power of truth.

Mr. Sidney made a strong and legal defence. He insisted that all the words in the book, contained more than general speculations on the principles of government, for any man to write down; especially since the same are written in the parliament rolls and in the statute laws.

He argued the injustice of applying by innuendoes, general assertions concerning principles of government, to overt acts, to prove the writer was compassing the death of the king; for then no man could write of things done even by our ancestors, in defence of the constitution and freedom of England, without exposing himself to capital danger.

He denied that *scribere est agere*, but allowed that writing and publishing is to act, (*Scribere et publicare est agere*) and therefore he urged, that as his book had never been published nor imparted to any person, it could not be an overt act, within the statutes of treasons, even admitting that it contained treasonable positions; that on the contrary it was a covert fact, locked up in his private study, as much concealed from the knowledge of any man, as where locked up in the author's mind. This was the substance of Mr. Sidney's defence: neither law, nor reason, nor eloquence, nor innocence ever availed, where *Jefferies* was judge. Without troubling himself with any part of the defence, he declared in a moment that Sidney's known principles were a sufficient proof of his intention to compass the death of the king.

A packed jury were found him guilty of high treason: great applications were made for his pardon. He was executed as a traitor.

This case is a pregnant instance of the danger that attends a law for punishing words, of little security the valuable have for their lives, in society where a judge by remote inferences and innuendoes may construe the most innocent expressions into capital crimes. Sidney, the British *Brutus*; the steady friend of liberty; who from a diffusive love to mankind left them an invaluable legacy, immortal discourses on government, was for these very discourses, murdered by the hands of lawless power.

After the revolution of 1688, when law and justice were again restored, the attainder of this great man was reversed by parliament.

"Being in Holland, (says bishop Burnet, the princess of Orange, afterwards queen Mary, asked me what had sharpened the king her father so much against Mr. Jurieu? her he writ with great indecency of Mary queen of Scots, reflections on them that descended from her. The princess said, Jurieu was to support the cause defended, and to expose those that persecuted it, in the best way he could; and if what he said of Mary queen of Scots was true, he was not to be blamed who made that use of it: and she added, that if princes would do things, they must expect that the world will take revenge on their memories, since they reach their persons. That but a small suffering, far short of what others suffered at their hands."

In the former part of this paper it was endeavoured to prove by historical facts, the fatal dangers that necessarily attend a restraint of freedom of speech and the liberty of the press: upon which the following reflection naturally occurs, viz. that whoever attempts to suppress either of these natural rights, ought to be regarded as an enemy to liberty and the constitution. An inconvenience may be suffered when it cannot be removed without introducing a greater.

I proceed in the next place to inquire into the nature of the English law, in relation of libelling. To acquire a just notion of them, the knowledge of history is necessary, and the genius and disposition of the prince is to be considered in whose time they are introduced and put in practice.

To infuse into the minds of the people an ill opinion of a just administration, is a crime that deserves no indulgence; to expose evil designs or weak management of a magistrate is the duty of every member of society. Yet king James thought it an pardonable presumption in the subject to pry into the (*arcana imperii*) the secrets of kings. He imagined that the people ought to believe the authority of the government infallible, and that their submission should be implicit. It may therefore be reasonably presumed, that

the judgment of the star-chamber, concerning libels, was influenced by this monarch's notions of government. No law could be better framed to prevent people from publishing their thoughts on the administration, than that which makes no distinction, whether the libel be true or false. It is not pretended that any such decision is to be found in our books, before this reign. That is not all to be wondered at; king James was the first of the British monarchs, that laid claim to a *divine right*.

It was a refined piece of policy in Augustus Cæsar, when he proposed a law to the senate, whereby invectives against private men were to be punished as treason. The pill was finely gilded, easily swallowed; but the Romans soon saw that the preservation of their liberties was only a pretext:—to preserve inviolable the sacred name of Cæsar was the design of the law. They quickly discovered the intended consequence—if it be a libel a private person, it cannot be less than blasphemy to speak ill of the emperor.

Perhaps it may not appear a too refined conjecture, that the star-chamber acted on the same views with Augustus, when they gave that decision which made it criminal to publish truth of a private person as well as a magistrate. I am the more inclined to this conjecture from a passage in lord chief justice Richardson's speech, which I find in the trial in the star-chamber, against Mr. Prynne, who was prosecuted there for a libel. "If subjects have an ill prince," says the judge, "marry, what is the remedy? they must pray to God to forgive him: Mr. Prynne saith there were three worthy Romans that conspired in murder Nero. This is most horrible."

Tremendous wickedness indeed, my lord chief justice! Where slept the thunder when these three detestable Romans, assailed by the sacred majesty of the diadem, with hands sacrilegious and accursed, took away the precious life of the imperial wolf, that true epitome of the Lord's anointed;—who had murdered his mother; who had put to death Seneca and Burrhus, two friends and benefactors;—who was drenched in the blood of mankind, and wished and endeavoured to exterminate the human race! I think my lord chief justice clearly explained the true meaning of the star-chamber doctrine; it is in the most abjectively passive obedience.

The punishment for writing truth, is pillory, loss of ears, branding the face with hot irons, fine, and imprisonment, at the discretion of the court. Nay, the punishment is to be heightened in proportion to the truth of the facts contained in the libel. But if this monstrous doctrine could have been swallow-

ed down by that worthy jury, who were on the trial of the bishops, prosecuted for a libel, in the reign of James II., it is a misfortune of Britain, that all human probability, had been lost, and slavery established in the three kingdoms.

This was one of the greatest expectation and importance that came before the judges in Westminster-hall.

The bishops had petitioned the king, that he would graciously please not to call upon their reading in the church his majesty's declaration for liberty of conscience, because it was founded on a dispensing power, declared illegal in parliament; and they said, that they could not in prudence, honour, or conscience, so far make themselves parties to it. In the information exhibited by the attorney-general, the bishops were charged with writing and publishing a false, malicious, seditious libel, (under pretence of a petition) a diminution of the king's prerogative, and a tempt of his government.

Sawyer and Finch were among the bishops' counsel, the former had been attorney, the latter solicitor-general. In these stations they had served the court only well. They were turned out because they refused to support the dispensing power. *Powis* and *Williams*, who stood in their places, had advantages over them, by reflecting on the precedents and proceedings, while those were of the king's counsel. "What was good law for *Sidney* and others, ought to be law for the bishops; God forbid that in a court of justice any such distinction should be made."

Williams took very indecent liberties with the prelates, who were obliged to appear in court: he reproached them with acting repugnant to their doctrine of passive obedience: he reminded them of their preaching against himself, and stirring up the clergy to rebel him in their sermons. For *Williams* had been for many years a bold pleader in all causes against the court. He had been speaker in two successive parliaments, and a zealous promoter of the bill of exclusion. *Jeffries* had fined him ten thousand pounds for having licensed, in the preceding reign, by virtue of an order of the house of commons, the printing of *Dangerfield's Narrative*, which charged the duke of York with conspiracies of a black complexion. This gentleman, without principles, was guided by his own interests, and wheeled about to the court. The king's counsel having produced their decesses as to the publication of the petition, the question then to be debated, whether it contained libellous matter or not.

It was argued in substance that the bishops, that the matter could not be libellous because it was true; sir Robert Sawyer makes use of the words false libellous, synonymous

terms, through the whole course of his argument; and so does Mr. Finch: accordingly they proceeded to show by the votes and journals of the parliament, which were brought from the tower to the court, that the kings of England, in no age, had any power to dispense with or set aside the laws of the land: consequently, the bishops' petition, which denied that his majesty's dispensing power, could be false, nor libellous, nor in contempt or diminution of the king's prerogative, as no such power was ever annexed to it. This was the foundation laid down through the whole of the debate, and which guided and governed the verdict.

It was strongly urged on behalf of the king, that the only point to be looked into was, whether the bishops be reflecting, dangerous, and not whether it be true or false. That the bishops had injured and affronted the king by presuming to prescribe to him their opinions in matters of government; that under pretence of delivering a petition, they come and tell his majesty, he has commanded an illegal thing: that by such a proceeding, they threw dirt in the king's face, and the libellers with a witness.

Previous to the opinions of the judges, it will be necessary to give the reader a short sketch of their characters: Wright was before on the bench, and made chief justice, as a proper man to support the dispensing power. Rayn, mentioning this trial, calls the king a creature of the court; but that excellent historian is mistaken in this particular; Powell was a judge of obstinate integrity. Alibone obtained him immortal honour. Alibone was a professed papist, and had taken tests, consequently he was no judge, and his opinion of no authority. Wright, in his charge, called the petition a libel, and declared that any thing which disturbs the government is within the *de hominibus famosis* (the star-chamber doctrine.) Holloway told the jury, that the end and intention of every action, is to be considered; and that as the bishops' intention, in delivering their petition, could be deemed malicious or libellous. Powell declared, falsehood and malice two essential qualities of a libel, which the prosecutor is bound to prove. Alibone replied upon Powell, that they are not things from any truth they have in themselves, but from the aspect they have on the government; for that the title of a libel may be true, and yet be a libel still.

The compass of this paper would not permit me to quote the opinion of the judges at length; but I have endeavoured, with the strictest regard to truth, to give the substance and spirit of them as I read them.

It has been generally said, that the judges, on this trial, were equally divided in their opinions; but we shall find a majority on the

bench in favour of the bishops, which may be considered, that the cause, as to Alibone, was beyond the jurisdiction of the court (*coram non judice*.)

Here then is a late authority, which sets aside, destroys, and annuls the doctrine of the star-chamber, reported by sir Edward Coke, in his case *de libellis famosis*.

Agreeable to this late impartial decision, the civil law, concerning libels. It is there said, that calumny is criminal only when it is false, (*calumniaria est falsa crimina dicere*;) and not criminal when it is true, (*vera crimina dicere*;) and therefore a writing, that contains falsehood, and is not directly a libel, cannot come under the denomination of a libel, (*Non libellus famosis quoad accusationem quis non directis assertionibus, in quibus venit verum, sed solum quod omnino requirit libellus famosis.*) In those cases where the design to injure does not evidently appear from the nature of the words, the intention must be presumed, it is incumbent on the plaintiff to prove the malice, (*animus injuriendi non presumitur et incumbit injuriatio probare.*)

These revolutions of the Roman lawyers bear great conformity with the sentiments of Powell and Holloway, that it seems they had them in view, when they gave their opinions. Robert Sawyer makes several glances at them, in his argument; throwing that supposition out of the question, natural equity, on which the civil law is founded, (the principle of passive obedience always excepted) would have directed any impartial man of common understanding to the same decision.

In civil cases an advocate should appear but when he is persuaded of the merits of the cause lie on the side of his client. In criminal actions it often happens, that the defendant in strict justice deserves punishment; yet a magistrate may oppose it when a magistrate is the offender, without making a breach in the barriers of liberty, and opening a flood-gate to arbitrary power. But when the defendant is innocent, and unjustly prosecuted, his counsel may, nay ought to take every advantage, and every stratagem that skill, art, and learning can furnish him with. This last was the case of Zenger, a New York, as appears by the printed trial, and verdict of the jury. It was a popular cause. The liberty of the press in that province depended on it. On such occasions the dryness of strict pleading are observed. The counsel for the defendant sometimes from the known principles of law, doubts and difficulties, confound the antagonist; now applies himself to affections; chiefly endeavours to raise passions. Zenger's defence is not to be considered in those different lights; yet a gentleman of the bar assures us, that it was published as

a solemn argument ■ the laws, and therefore writes a very elaborate confutation of it.

I propose to consider some of his objections, as far as ■ interfere with the freedom of speech and the liberty of the press, contended for in this paper.

This author began his remarks, by giving us a specimen of Mr. Hamilton's method of reasoning. ■ seems the attorney-general on the first objected, that a negative could not be proved; to which the counsel for Zenger replied, that there are many exceptions to that general rule; and instanced when a man is charged with killing another; if he be innocent, he may prove the man said to be killed, to be still alive. The remarker will not allow this to be a good proof of the negative, for, says he, "this is no more than one instance of one affirmative, being destroyed by another that infers a negative of the first." It cost me some time to find out the meaning of ■ superlative nonsense; and I think I have at last discovered it. What ■ understands by the first affirmative, is the instance of the man's being charged with killing another; the second affirmative, is the man's being alive; which certainly infers that the ■ ■ ■ killed: which ■ undoubtedly a negative of the first. But the remarker of Barbadoes, blunders strangely. Mr. Hamilton's words are clear. He says, the party accused ■ on the negative, viz. that he *did not kill*; which he may prove by ■ affirmative, viz. that the man said to be killed, is still alive.

Again, "at which rate," continues our Barbadoes author, "most negatives may be proved." There indeed the gentleman happened to stumble right; ■ every negative, capable of proof, can only be proved after the ■ manner, namely by an affirmative. "But then," he adds, "that a ■ will be put upon proving, he did not kill, because such proof may be had sometimes, and so ■ rule will be discarded." This ■ clearly a ■ *sequitur*, (not an argument;) for though a ■ may prove a negative, if he ■ for his advantage, it does by no ■ that he shall ■ obliged to do it, and so that old rule will be preserved.

After such notable instances of a blundering unlogical head, ■ not to ■ surprised at the many absurdities and contradictions of this author, which ■ in ■ sequel of his *No-argument*.

But I shall only cite those passages where there is a probability of guessing ■ his meaning, for he has so preposterously jumbled together this little stock of ideas, that even after the greatest efforts, I could find but very ■ or coherence in them. I should not however, have discontinued my labour, had I not been apprehensive of the fate of poor *Dou Quixotte*, who ■ distracted by endeavour-

ing to unbowl the sense of the following passage—"The reason of your unreasonableness, which against ■ reason is wrought, doth so weaken my reason, as with all reason I do justly complain." There are several profound passages, in the remarks, not a whit ■ to this. The dissertation on the negative and affirmative, ■ once thought to be an ■ counterpart of it.

Our author ■ prove ■ a libel, whether true or false, ■ punishable. The first authority for this purpose, is the case of John de Northampton, adjudged in the reign of Edward III. Northampton had wrote a libellous letter to one of the king's council, purporting that the judges would do no great thing, at the commandment of the king, &c., the said John was called, and the court pronounced judgment against him on those grounds, that the letter contained no truth in it, and might incense ■ king against his judges. Mr. Hamilton says, ■ by this judgment it appears, ■ libellous words were utterly false, and that the falsehood was the crime, and is the ground of the judgment. The remarker rejects this explanation, and gives ■ ingenious comment of his own. First, he says, there is neither truth ■ falsehood in the words. ■ the time they ■ wrote. Secondly, that they were the same as if John ■ the roof of Westminster-hall would ■ on the judges. Thirdly, that the words taken by themselves have no ■ meaning. Fourthly, that the judges ought to do their duty, without any respect to the king's commandment (they ■ so to do.) Fifthly, he asks where then was the offence? ■ answers, sixthly, the record shows it. Seventhly, he says that the author of the letter was an attorney of the court, and by the ■ tents thereof (meaning the contents of the letter ■ the contents of the court) he pre- ■ undertake for the behaviour of the judges. Eighthly, that the letter ■ addressed to a person of the king's council. Ninthly, that he might possibly communicate it to the king. Tenthly, that it might naturally incense the king against the court. Eleventhly, ■ great things ■ done in those days by the king's commandment, for the judges held their post ■ will and pleasure. Twelfthly, that it ■ therefore proper for the judges to assert, that the letter contained no truth, in order to acquit themselves to the king. Thirteenthly, that the judges asserted a falsehood, only to acquit themselves to his majesty, because what they asserted ■ no grounds of their judgment. Fourteenthly and lastly, the commentator avers (*with much modesty*) ■ all this senseless stuff, is a plain and natural construction of the case; but he would not have us take ■ wholly on his own word, and undertakes to show that the case was so ■

derstood by Noy, in [] month our author puts just such becoming [] he entertained us with from himself.

It requires no great penetration to make this discussion in question appear reasonable [] intelligible. But it ought first to [] observed [] Edward III. [] of the best and wisest, as well as the bravest of our kings, and that [] law [] never a freer course than under his reign. Where the letter mentions that [] judges would do [] great things (i. e. illegal things) by the king's commandment, it was plainly insinuated, that the judges suspected that the king might command them to do illegal things. Now by the means of that letter [] king being led [] imagine that the judges harboured [] suspicion so unworthy of him, might be justly incensed against them: therefore the record truly says, that the letter was utterly false, and that there was couched under it, [] insinuation (certainly malicious) that might raise [] indignation in this king against the court, &c., since it evidently appears, that not only the falsehood, but also the malice [] the ground of the judgment.

I agree with the remarker, that Noy, citing this [], says that the letter contained no ill, yet the writer was punished; but these words are absolutely as they stand in the remarks attached from the context. Noy adduces Northampton's case, to prove that a [] is punishable for contemplating without a cause, though the words of the complaint (simply considered) should contain no ill in them, it is [] natural to inquire whether the application be just: [] only an expression of [] counsel at the bar. The [] adjourned, and we hear no [] of it. Yet these words of Noy, the remarker, would pass [] the reader [] a good authority. "This book, therefore," quoth he, referring [] Godbolt's reports, "follows [] record of Northampton's case, and [] that because it might incense the king against the judges [] punished;" which is almost a translation of *Prætextu ejus*, &c. I could readily pardon our author's glibberish, and [] of apprehension, but cannot [] easily digest his insincerity.

The remarker in the [] place proceeds to the trial of the seven bishops; I shall quote his own words, though I know they are so senseless and insipid, that [] the risk of trespassing on the reader's patience; however here they be, "Mr. Justice Powell also does say, that to make [] libel, it must [] false, [] must be malicious, and it must tend [] sedition." Upon which words of this learned and worthy judge, I would [] presume [] any comment, except [] which other words of his own afford, that plainly show in what [] he then spoke. [] subsequent words [] these: "the [] bishops [] majesty, it is [] [] averseness," &c. So that the judge

put [] whole upon that single point, whether it be true that the king [] a dispensing power or not; which [] a question of law, and not of fact, and accordingly [] judge appeals to his own reading in the law, [] witness or other testimonies for a decision of it."

Now the bishops had asserted in the libel they were charged with, that the dispensing power, claimed by the king in his declaration, was illegal. The remarker, by granting that the prelates might prove part of their [] tion, viz. [] the dispensing power [] illegal, which is a question of law, necessarily allows them to prove the other part of their assertion, viz. [] [] majesty [] claimed such [] power, which [] a question of fact; for the former could [] [] without proving or admitting the latter, [] so in all other cases, where [] publishes of a magistrate, that he has acted, [] commanded an illegal thing, if the defendant shall [] [] prove the mode [] illegality of the thing, [] is evidently implied that he may prove [] thing itself; so that [] the gentleman's own premises, it is a clear consequence that a man prosecuted for a libel, shall be admitted to give the truth in evidence. The remarker has a method of reasoning peculiar to himself; he frequently advances arguments, which directly prove the very point he is labouring to confute.

But in truth, judge Powell's words would [] have given the least colour [] such [] ridiculous distinction, if they had been fairly quoted. He affirms with the strongest emphasis, that to make it a libel, it must be false, it [] malicious, and it [] tend to sedition. (Let it be observed that these three qualities of a libel against the government [] in the conjuncture) his subsequent words are these, "as to the falsehood, I [] nothing that is offered by the king's counsel; [] any thing as to the malice." Here the judge puts the proof both of the [] [] malice [] the persecutor; and though the falsehood in this [] [] a question of law, it will [] denied, but that the malice was a question of fact. Now shall we attribute this omission [] the inadvertency of the remarker? No, that cannot be supposed; for the sentence immediately followed. [] they [] nailing decisive words, which if they [] fairly quoted, had put an end [] the dispute, and left the remarker without the least [] for evasion; [] therefore he very honestly dropped them.

Our author [] is necessary to consult Bracton, in order to fix our idea of a [] Now Bracton, throughout his five [] [] *legibus, et consuetudinibus anglie*, only once happens to mention libels, very perfunctorily. He says, no more than, that [] may receive an injury by a lampoon [] things of that nature. *Fit injuria cum de [] factum carmen famosum et kenjusmoti*. Pray []

is any person's idea of a *libel* the better fixt by this description of it! Our author very magnificently observes, on [] words of Bracton, [] falsity of a [] is neither expressed nor implied by them. That it is not expressed is self-evident; but that it is not implied, we have only the remarker's *ipse dixit* for it.

[] it was really idle [] impertinent to draw this ancient lawyer into the dispute, as nothing could [] be learned from him. only that a libel is an injury, which every body will readily grant. I have good ground to suspect, [] author [] consult Bracton on this occasion; the passage cited in the remarks, is literally transcribed from Coke's ninth report, folio 60; by which [] unlearned reader might be easily led to believe, that our author [] well skilled in ancient learning: ridiculous [] and pedantry [].

To follow the remarker through all his incoherencies [] absurdities, would be irksome; [] indeed nothing is more voracious than to be obliged to refute lies and []. Besides, a writer who is convicted of imposing wilful falsehoods [] the reader, ought to be regarded with abhorrence and contempt. It is for this reason I have treated him with an acrimony of style, which nothing but his malice and [] of sincerity, and [] his ignorance, his dullness, or vanity, could have justified: however, as to the precedents and precedents [] against libelling, before the case of the seven bishops, he ought to be left undisturbed in the full enjoyment of the honour he has justly acquired by transcribing them from common-place books, and publishing them in gazettes. Pretty speculations these [] be inserted in newspapers, especially when they [] clothed and loaded under the jargon and tackle of [] law.

I am sure that by this time the reader must be heartily tired with the little I have offered on the subject, though [] have endeavoured to speak so as to be understood; yet it in [] appeared necessary to expose the folly and ignorance of [] author, inasmuch [] he seemed to be cherished by some pernicious [] of the profession, who neglecting the noblest parts feed on the [] branches of the law.

Besides, the [] of the press would be wholly abolished, if the remarker could have propagated [] doctrine of punishing truth.— Yet he declares he would [] be thought to derogate from that noble privilege of a free people. How does [] reconcile those contradictions! why truly thus: he says, that the liberty of the press is a bulwark and two-edged weapon, capable of cutting two ways, and [] only to be trusted in the hands of men of wit and address, [] with such souls as [] without art. I [] the blunder of his calling a bulwark a two-edged weapon, for a

lawyer is not supposed to be acquainted with military terms; but is it not highly ridiculous, that the gentleman will not allow a *squib* to be fired from the *bulwark of liberty*, yet freely gives permission to erect on it a battery of cannon.

Upon the whole, [] suppress inquiries into the administration [] good policy in [] arbitrary government; [] a free constitution and freedom of speech, have such a reciprocal dependence on [] other, [] they [] sub- without consisting together.

On Government.—From the Pennsylvania Gazette, April 1, 1786.

Government is aptly compared to architecture; if the superstructure [] heavy for the foundation, the building totters, though assisted by outward props of art. [] leaving it to every body to mould [] similitude according to his particular fancy, I shall only observe, that the people have made [] [] considerable part of the legislature in every free state; which has been more or less so, in proportion to the share they have had in the administration of affairs. The English constitution is fixt on the strongest basis, we choose whomsoever we please for our representatives, and thus we have all the advantages of a democracy, without any of its inconveniences.

Popular governments have not been framed without the wisest reasons. It seems highly fitting, that the conduct of magistrates created by and for the good of the whole should be made liable to the inspection and *animadversion* of the whole. Besides, there could not be a [] potent counterpoise to the designs of ambitious men, than [] multitude that hated and feared ambition. Moreover the power they possessed though great collectively, yet being distributed among a vast number, the share of each individual [] too inconsiderable [] lay him under any temptations of turning it [] a wrong use. Again, a body of people thus circumstanced, [] be supposed to judge amiss on any essential points; for if they decide in favour of themselves, which is extremely natural, their decision is just, inasmuch [] whatever contributes to their benefit is a general benefit, and advances the real public good. Hence [] have an easy solution of the *prophani*, so often proposed by the abettors of tyranny, who tell us, that when *differeuces* [] between [] prince and his subjects, the latter [] incapable of being judges of the controversy, for that would be setting up judge and party in the same person.

Foreigners have [] a truer idea of our constitution. We read in the memoirs [] the late archbishop of Cambray, Fenelon, [] celebrated author of *Telemachus*, a [] veneration which [] had with the pretender,

(son of James II. of England.) "If ever you come to the crown of England," says the bishop, "you will be a happy prince; with an unlimited do good, and only restrain doing evil." Britain, perhaps, in plain English, "You'll be at liberty to do as much good as you please, but by G— you sha'l do us no hurt." The bishop sweetened the pill; for such it would appear its simple form, to a mind fraught with notions of arbitrary power, and educated among a people, who, with the simplicity, of their slavery.

What can be more ridiculous than to hear them frequently object to English gentlemen living in their country.* What is your king? Command me our grand monarch, who can do whatever he pleases. But begging pardon of these facetious gentlemen, whom it is not my intention to disturb in many notions of government, I shall go on to examine what were the sentiments of the ancient Romans on this head.

We find that their dictator, a magistrate created but in cases of great extremity, vested with power as absolute during office (which never exceeded six months) the greatest kings were never possessed of; this great ruler was liable to be called to an account by any of the tribunes of the people, whose persons were at the same time rendered sacred, by the solemn laws.

This is evident proof, that the Romans were of opinion, that the people could not in any sense divest themselves of the supreme authority, by conferring the extensive power they possibly could imagine, on one or more persons acting as magistrates.

This appears still more evident, in remarking that the people as umpire of the differences which had arisen between the dictator and senate, in the case of young Fabius.

The great deference which Cicerò paid to the judgment of the Roman people, by those orations, of which they were the judges and auditors. That great orator had a just opinion of their understanding. Nothing to him more sensible pleasure than their approbation. But the Roman populace was more than more virtuous perhaps; but their of discernment was not better than ours. However, the judgment of a whole people, especially of a free people, is looked upon to be infallible, so that it is become a common proverb, that the voice of God is the voice of the people—*Vox Dei est populi vox*. And this is universally true, while they remain in

proper sphere, unobscured by faction, undeluded by the tricks of designing

Thank God! we are in the full enjoyment of all these privileges. But can we be taught to prize them too much? or how can we prize them equal to their value, if we not know their intrinsic worth, and that they are a gift bestowed upon us by other men but a right that belongs to us by the laws of God and nature?

Since they are our right, let us be vigilant to preserve them unimpaired, and from encroachments; if animosities arise, and that we should be obliged to resort to party; let each of us range himself on the side which unfurls the ensigns of public good. Faction will then vanish, which if not timely suppressed, may destroy the balance, the palladium of liberty, and crush the ruins.

The design of this paper, is to the common rights of mankind, by endeavouring to illustrate eternal truths, that cannot be shaken even with the foundations of the world.

I may take another opportunity to show, how a government founded on these principles rises into the most beautiful structure, with all the graces of symmetry and proportion, much different from that raised on arbitrary power, as Roman architecture from a gothic building.

Government.—From the Pennsylvania Gazette, April 8, 1786.

An ancient sage of the law,* says,—the king can do no wrong; for if he doeth wrong is not the king.† And in another place,—when the king doth justice he is God's vicar, but when he doth unjustly he is the agent of the devil.‡ The politeness of the latter times, has given a softer turn to the expression. It is now said, the king can do no wrong, his ministers. In the parliament of 1741, declared they made against the king for the king's service. But his majesty affirmed that such a distinction absurd, though by the way his own creed contained a greater absurdity, for he believed he had an authority from God to oppress the subjects, whom by the same authority he obliged to cherish. Aristotle calls princes tyrants, from interest they are up interest different from that of their subjects; and this is the only definition he gives us of tyranny. Our own countryman, cited, and the sagacious Greek, agree on this point, a governor who contrary to the ends of government, loses the bestowed on him at his institution. would

* Qu'est ce qui roi? perles moi de notre grand qui peut faire ce qu'il veut.
† antiquus plebs cases, (says one of the tribunes.) Se abrogando.
Q. Fabii imperio. Liv. lib. 2. chap. 25.
‡ Tribunes plebis (says illustrious orator) dictator pro populo, eumque tibi ager senatus judicium, judicem lib. 2. chap. 23.

* Bracton de leg. Angl. author of weight, contemporary with Henry III.
† Rex non facit injuriam, qui ad injuriam, est rex.
‡ Deus iustitiam est regis ter autem ad injuriam.

be highly improper to give the same name to things of different qualities, or produce different effects; matter, while it communicates heat, is generally called *fire*, but when the flames are extinguished, the appellation is changed. Sometimes indeed the same sound serves to express things of a contrary nature; but only a defect, or poverty of language.

A wicked prince imagines the crown receives absolute power, whereas every step he takes to obtain it, is a forfeiture of the same.

His conduct is as foolish as it is detestable; he aims at glory and power, and treads the path that leads to dishonour and contempt; he plagues his country, and deceives himself.

During the turbulent reigns of the Stuarts (except a part of queen Anne's) it was a perpetual struggle between them and the people; they endeavouring to subvert, and these bravely opposing the subverters of liberty. What the consequences? One lost his life on a scaffold, another was banished. The memory of all of them stinks in the nostrils of every true lover of his country; and their history stains with indelible blots the English annals.

The reign of queen Elizabeth furnishes a beautiful contrast. All her views centred in one object, which was the public good. She made it her study to gain the love of her subjects, by flattery or little soothing arts, but by rendering them substantial favours. It was far from her policy to encroach on their privileges; she augmented and secured them.

And it is remarked her eternal honour, that she presented to her for her royal approbation (forty or fifty of a session of parliament) signed without any examining farther than the titles. This wise and good queen only reigned for her people, and knew that it absurd to imagine they would promote any thing contrary to their own interests, which so studiously endeavoured to advance. On the other hand, when this queen asked money of the parliament, they frequently gave her more than she demanded, and inquired how it was disposed of, except for form sake, being fully convinced she would not employ it but for the general welfare. Happy princess, happy people! what harmony, what mutual confidence! Seconded by her ministers and purses of her subjects, she crushed the exorbitant power of Spain, which threatened destruction to England, and chains to all Europe. That monarchy has ever since pined under a stroke, so that now when we send a man of war or two to the West Indies, it puts her into such a panic fright, that if the galleons can steal home, she sings *Te Deum* as for a victory.

This is a picture of government, its reverse is tyranny.

VOL. II. . . 3 K

On Paper Money.

Remarks and Facts relative to the American Paper money.*

In the Report of the board of trade, dated February 9, 1764, the following reasons are given for restraining the emission of paper-bills of credit in America, as a legal tender.

1. "That it carries the gold and silver out of the province, and so ruins the country; as experience has shown, in every colony where it has been practised in any great degree.

2. "That the merchants trading to America have suffered and lost by it.

3. "That the restriction of it has had a beneficial effect in New England.

4. "That every medium of trade has no intrinsic value, which paper-money is not; silver is therefore the fittest for this medium, as they are equivalent; which paper can be.

5. "That debtors in paper-money with fraudulent intent.

6. "That in the inland colonies, where the credit of the paper-money has been best supported, the bills have kept their nominal value in circulation; but have constantly depreciated to a certain degree, while over the quantity has been increased."

To consider these in their order, the first is

1. "That paper-money carries the gold and silver out of the province, and so ruins the country; as experience has shown, in every colony where it has been practised in any great degree."—The opinion, of its ruining the country, seems to be merely speculative, or not otherwise founded than upon misinformation in the matter of fact. The truth is, that the balance of their trade with Britain being greatly against them, the gold and silver drawn out to pay balance; and then the necessity of some medium of trade has induced the making of paper-money, which could not be carried away. Thus, if carrying out all the gold and silver ruins a country, every colony was ruined before it made paper-money.—But, from being ruined by it, the

* The substance of the Report, to which this paper is a reply, was as follows. During the war there had been a considerable and an unusual trade to America, in consequence of the great fleets and armies on foot there, and the clandestine dealings with the colonies, and the off from their own supplies. The great debt of the colonies to the British government, and the want of the merchants were anxious for payment, which occasioned some confusion in the colonies, and stirred up a clamour in England against paper-money. The board of trade, of which Hillsborough was the chief, joined in the opposition to paper-money, as appears by the report. Dr Franklin being asked to draw up an answer to the report, wrote the paper given here, adapted to the true condition of the colonies; particularly to which the passages sound; in relation to the British trade no more is said; what is according to common experience. Paper was over-issued as before, of money, bankruptcies followed, and the credit was suffered accordingly, as they have suffered through the same causes.

colonies that have made use of paper-money have been, and are all in a thriving condition. The debt indeed in Britain has increased, but their numbers, and of course their trade, have increased; and having always a proportion of it outstanding, which is paid in turn, it is contracted, the proportion of debt naturally increases as trade increases; and improvement and increase of estates in the colonies have been in a greater proportion than their debt. In England, particularly in 1700 (about the time they began the use of paper-money) had in four provinces 130 churches or congregations; in 1750 they were 330. The number of farms and buildings there is increased in proportion to the numbers of people; the goods exported to them from England in 1750, before the restraint was placed, were near five times as much as before they had paper-money. Pennsylvania, before it made any paper-money, was totally stripped of its gold and silver; though they were from time to time, like the neighbouring colonies, agreed to take gold and silver coins at higher nominal values, in hopes of drawing money into it, and retaining it, for the internal uses of the province. During that weak practice, silver got up by degrees to 8s. 9d. per ounce, and English crowns were called six, seven, and eight shilling pieces, long before paper-money was made. But the practice of increasing the denomination was found not to be the end. The balance of trade carried out the gold and silver fast as they were brought in; the merchants raising the price of their goods in proportion to the increased denomination of the money. The difficulties for want of cash were accordingly very great, the chief part of the trade being carried on by the extremely inconvenient method of barter: when in the use of paper-money was made there, which gave life to business, promoted greatly the settlement of new colonies (by lending small sums to beginners on easy interest, to be repaid by instalments) whereby the province has so greatly increased in inhabitants, that the export from hence thither is now more than what it then was; and by their trade with foreign colonies, they have been enabled to obtain great quantities of gold and silver to remit thither in re-payment of the manufactures of this country. New York and New Jersey have also increased greatly during the same period, with the use of paper-money; so that it does not appear to be of the ruinous nature ascribed to it. And if the inhabitants of those countries are glad to have the use of paper among themselves, they may thereby be enabled to remit thence hither, the gold and silver they obtain by their commerce with foreigners; and should expect, that no objection

against their parting with it could arise here, in the country that receives it.

The 2d reason is, "that the merchants trading to America have been and lost by the use of paper-money."—This is the case in particular instances, at particular times and places: as in Carolina, about 50 years since; when the colony was thought in danger of being destroyed by the French and Spaniards; the British merchants, in fear of losing their whole effects there, precipitately for remittances; the inhabitants, to get something lodged in safe countries, gave any price for paper-money for bills of exchange; whereby the paper, as compared with bills, or with produce, or other effects fit for exportation, suddenly and greatly depreciated. The unsettled state of government for a long time in that province had also its share in depreciating its bills. But since that danger blew over, and the colony has been in the hands of the crown; their currency became fixed, and has remained the same day. Also in New England, when much greater quantities were issued than necessary for a medium of trade, to defray the expedition against Louisbourg; and, during the last war in Virginia and North Carolina, when great sums were issued to pay the colony troops, and the colony made tobacco a poorer remittance, from the higher price of freight insurance: in these cases the merchants trading to those colonies may sometimes have suffered by the sudden and unforeseen rise of exchange. By slow and gradual rises, they seldom suffer; the goods being sold at proportionable prices. But it is a common calamity in all countries, and the merchants that trade with them cannot expect to avoid a share of the losses it sometimes occasions, by affecting public credit. It is hoped, however, that the profits of their subsequent trade with those colonies may have more than repaid them for the loss. And the merchants trading to the middle colonies (New York, New Jersey, and Pennsylvania) have been enabled by the use of exchange; having been a long time ruled there, to consider British money as payable in Britain, and to be discharged but by as much paper (whatever might be the value of exchange) as would purchase a bill for the full sterling value. On the contrary, the merchants have been great gainers by the use of paper-money in those colonies; and enabled them to send much greater quantities of goods, and the purchasers to pay more punctually for them. And the people there make no complaint of any injury done them by paper-money with a legal tender; they are sensible of its benefits; and petition to have it so allowed.

The 3d reason is, "that the restriction on the issue of paper-money had a beneficial effect in New England."

Particular circumstances ■■■ New England colonies made paper-money less necessary and ■■■ convenient to them. They have great and valuable fisheries of whale and cod, by which large remittances ■■■ be made. They ■■■ four distinct governments; but having ■■■ mutual intercourse of dealings, the money of each used to pass current in all; but the whole of ■■■ common currency not being under one ■■■ direction, was not so easily kept within ■■■ bounds: the prudent reserve of one colony in its emissions being rendered ■■■ by ■■■ in another. The Massachusetts, therefore, ■■■ not dissatisfied with the restraint, ■■■ it restrained their neighbours as well as themselves; ■■■ perhaps they do ■■■ to have the act repealed. They have ■■■ yet felt much inconvenience from it; ■■■ they ■■■ to abolish their paper-currency, by ■■■ large ■■■ in silver from Britain ■■■ reimburse their expenses in taking Louisbourg, which, with the gold brought from Portugal, by ■■■ of their fish, kept them supplied with a currency; till the late ■■■ furnished them and all America with bills of exchange; ■■■ that little cash ■■■ needed for remittances. Their fisheries too furnish them with remittance through Spain and Portugal ■■■ England; which enables them the more easily to retain gold and silver ■■■ their country. The middle colonies have ■■■ this advantage; nor have they tobacco; which in Virginia ■■■ Maryland ■■■ the same purpose. When colonies ■■■ so different in their circumstances, ■■■ regulation, that ■■■ inconvenient ■■■ or a few, ■■■ be very much so to the rest. But the pay ■■■ now be ■■■ ■■■ indifferent in New England, at least in some of its provinces, through the want of currency, ■■■ the trade thither is ■■■ present under great discouragement.

The 4th ■■■ is, "That every medium of trade should have an intrinsic value; which paper-money has not. Gold and silver are therefore the fittest for this medium, as they ■■■ equivalent; which paper never can be." However fit a particular thing may be for a particular purpose; wherever that thing is not to ■■■ had, ■■■ ■■■ in sufficient quantity; ■■■ becomes necessary to use ■■■ thing else, the fittest that can be got, in lieu of it. ■■■ and silver ■■■ the produce of North America, which ■■■ no mines; and that which is brought thither cannot be kept there ■■■ sufficient quantity for a currency. Britain, an independent great state, when its ■■■ grow ■■■ fond of the expensive luxuries of foreign countries, ■■■ draw away its money, can, and frequently does, make laws to discourage ■■■ prohibit ■■■ importations; and by ■■■ ■■■ retain its cash. ■■■ colonies ■■■ dependent governments; ■■■ their people having naturally great respect for the sovereign country, ■■■ being thence

immoderately fond of its modes, manufactures, and superfluities, cannot ■■■ from purchasing them by any province law; because such law, if made, would immediately ■■■ repealed here, as prejudicial ■■■ trade and interest of Britain. It seems hard therefore, to draw all their real money ■■■ them, and then refuse them the poor privilege of using paper instead of it. Bank ■■■ bankers' notes are daily ■■■ here ■■■ medium of trade, and in large dealings perhaps the greater part is transacted by their ■■■ yet they have ■■■ intrinsic value, but ■■■ the credit of those that issue them; as paper-bills in the colonies do on the credit of the respective governments there. Their being payable in ■■■ upon sight by the drawer is indeed a circumstance ■■■ attend the colony bills, for the ■■■ just above-mentioned; their cash being drawn from them by the British trade: but the legal tender being substituted in ■■■ place, is rather a greater advantage to the possessor; since he need not be at the trouble of going to a particular bank or banker to demand the money, finding (wherever he has occasion to lay out money in the province) a person that is obliged to take the bills. So that even out of the province, the knowledge, that every ■■■ within that province is obliged to take its money, gives the bills credit among its neighbours, nearly equal to what they have at home.

And were it not for the laws here, that restrain or prohibit as much ■■■ possible ■■■ loaning trades, the cash of this country would soon ■■■ exported: every merchant, who had occasion to remit it, would run to the bank with all its bills, that ■■■ into his hands, and take out his part of ■■■ treasure for that purpose: so that in a short time, it would be ■■■ to pay bills in money upon sight, than it is now in the power of a colony treasury so ■■■ do. And if government afterwards should have occasion for the credit of the bank, it must of necessity make its ■■■ a legal tender; funding them however ■■■ which they may in time be paid off; as has been the general practice in the colonies.—At this very time, even the silver-money ■■■ England is obliged to the legal tender for part of ■■■ value; that part which ■■■ the difference between its real weight and its denomination. Great part of the shillings and sixpences now current are, by wearing become five, ten, twenty, and ■■■ of the sixpences even fifty per cent. too light. For this difference between the real ■■■ the nominal, you have no intrinsic value; you have not ■■■ much as paper, you have nothing. It is the legal tender, with the knowledge that it can easily ■■■ passed for the same value, that makes three-pennyworth of silver pass for sixpence. Gold and silver have undoubtedly ■■■ properties that give them ■■■ above paper, as a

medium of exchange: particularly their universal estimation; especially in [] where a country [] to carry its money abroad, either as a stock to trade with, or to purchase allies and foreign []. Other [] very universal estimation is an inconvenience, which paper-money is free from; since it tends to deprive a country of even the quantity of currency [] should [] retained as a necessary instrument of its internal commerce, and obliges it to be continually on its guard in making and executing, at a great expense, the laws that are to prevent the trade which exports it.—Paper-money well founded has another great advantage over gold and silver; its lightness of carriage, and the little room that is occupied by a great sum; whereby [] is capable of being more easily, and more safely, because more privately, conveyed from place to place. Gold and silver are not intrinsically of equal value with iron, a metal in itself capable of many more beneficial uses to mankind. Their [] chiefly in the estimation they happen to be in among the generality of nations, and the credit given to the opinion, that that estimation will continue. Otherwise a pound of gold would not be a real equivalent for even a bushel of wheat. Any other well-founded credit, is as much an equivalent as gold [] silver; [] some cases more so, or it would not be preferred by commercial people in different countries. Not to mention again our own [] bills; Holland, which understands the value of cash as well as any people in the world, would never part with gold and silver for credit (as they do when they put it into their bank, from whence little of it is ever afterwards drawn out) if they did not think and find the credit a full equivalent.

The fifth reason is, "That the debtors in the assemblies make paper-money with fraudulent views." [] is often [] by the aldermen of paper-money, and if it has been the case in any particular colony, that colony should, on proof of the fact, be duly punished. This, however, would [] reason for punishing other colonies, who have [] so abused their legislative powers. To deprive all the colonies of the convenience of paper-money, because it has been charged on some of them, that they have made it an instrument of fraud, as if all the India, bank, and other stocks and trading companies were to be abolished, because there have been, once in an age, Mississippi and South-sea schemes and bubbles.

The sixth and last reason is, "That in the middle colonies, where the paper-money has been best supported, the bills have never kept to their nominal value in circulation; but have constantly depreciated to a certain degree, whenever the quantity has been increased." If the rising of the value of any particular commodity wanted for exportation, is to

be considered as a depreciation of [] value of whatever remains in the country; then the rising of silver above paper to that height of [] value, which its capability of exportation only gave it, may be called a depreciation of the paper. Even here, as bullion has been wanted or [] wanted for exportation, its price has varied from 5s. 2d. to 5s. [] ounce. This is near 10 per cent. But [] it ever said [] though [] on such an occasion, that all the bank bills, and all the coined silver, and all the gold in the kingdom, were depreciated 10 per cent? Coined silver is now wanted here for exchange, and 1 per cent. is given for it by some bankers: are gold [] bank notes therefore depreciated 1 per cent? The fact in the middle colonies is really this: on the emission of the [] paper-money, a difference soon [] between that and silver; the latter having a property the former had not, a property always in demand in the colonies; to wit, its being fit [] []. This property having [] [] value, by the merchants bidding on one another for it, and a dollar thereby coming [] be rated at 8s. in paper-money of New York, [] 7s. [] in paper of Pennsylvania, it has continued uniformly at those rates in both provinces now near forty years, without any variation upon new emissions; though, in Pennsylvania, the paper-currency has at times increased from 15,000L. the first sum, to 600,000L. or near it. Nor has any alteration been occasioned by the paper-money, in the price of the necessaries of life, when compared with silver: they have been for the greatest part of the time no higher than before it was emitted; varying only by plenty and scarcity, or by a less or greater foreign demand. It has indeed been usual with the adversaries of a paper-currency, to call every rise of exchange with London, a depreciation of the paper: but this notion appears to be by no means just: for if the paper purchases every thing but bills of exchange, at the former rate, and these bills are not above one tenth of what is employed in purchases; then it may be more properly and truly said, that the exchange [] risen, than that the paper has depreciated. And as a proof of this, it is a certain fact, that whenever in those colonies bills of exchange have been dearer, the purchaser has been constantly obliged to give more in silver, as well as in paper, for them; the silver having gone hand in hand with the paper at the rate above-mentioned; and therefore it might as well have been said, that the silver was depreciated.

There have been several different schemes for furnishing the colonies with paper-money, that should not be a legal tender, viz.

1. To form a bank, in imitation of the bank of England, with a sufficient [] of cash to pay the bills on sight.

This has been often proposed, but appears

impracticable, under the present circumstances of the colony-trade; which, as is said above, draws all the cash to Britain, and would soon strip the bank.

2. To raise a fund by some yearly tax, securely lodged in the exchequer of England as it arises, which should (during the term of years for which the paper-bills are to be current) accumulate a sum sufficient to discharge them at their original value.

This has been tried in Maryland: and the bills so funded were current without being made a general legal tender. The event was, that as notes payable in time are naturally subject to a discount proportioned to the time; so these bills fell at the beginning of the term low, so that twenty pounds of them became worth no more than twelve pounds in Pennsylvania, the neighbouring province; though both had been struck near the same time at the same nominal value, but the latter was supported by the general legal tender. The Maryland bills, however, began to rise as the term shortened, and towards the end recovered their full value. But, as a depreciating currency injures creditors, this injured debtors; and by its continually changing value, appears unfit for the purpose of money, which should be as fixed as possible in its own value; because it is to be the measure of the value of other things.

3. To make the bills carry an interest sufficient to support their value.

This too has been tried in some of the New England colonies; but great inconveniences were found to attend it. The bills, to fit them for a currency, were made of various denominations, and very low, for the sake of exchange; there are of them from 10d. down to 3d. When they first passed abroad, they were easily, and answer the purpose well enough for a few months; but as soon as the interest becomes worth computing, the calculation of it on every little bill is a matter between the dealer and his customers, in shops, warehouses, and markets, taken up much time, is the great hindrance of business. This evil, however, is not the worst place to be worse: for the bills in a short time gathered up and hoarded; it being a very tempting advantage to have money bearing interest, and the principle of the whole is a man's power, ready for bargains that may offer; which money on mortgage is not. By this means numbers of people become warrens with small sums, who could not have found persons to take such sums of them upon interest, giving good security; they would therefore not have thought of it: but would rather have employed the money in some business, if it had been money of the same value. Thus trade, instead of being promoted by such bills, is diminished; and by their being shut up in chests, the very evil of making them (viz. to furnish a medium

of commerce) is in a great measure, if not totally defeated.

On the whole, no method has hitherto been formed to establish a medium of trade, in lieu of money, equal in all its advantages, to bills of credit—funded on sufficient security for discharging it, and land-security of double value, for repaying it at the end of the term; and in the mean time, made a general legal tender.

On Coin.

THE clamour made of the great inconvenience, suffered by the community in regard to the coin of this kingdom, prompted me in the beginning of majesty's reign to give the public some reflections on coin in general; on gold and silver as merchandise; and I have my thoughts on paper passing as money.

As I trust the principles then laid down are founded in truth, and will serve now as well as then, though made fourteen years ago, to change any calculation, would be of little use.

Some sections, in the foregoing essay of principles of trade, might in this appendix, appear like a repetition, have been omitted.

I always resolved to enter into any particular deduction from laws relating to coin; into any minutia, as accurate nicety, in weights. My intention, and still is, no more than to endeavour to show, as briefly as possible: that what relates to coin, is of such a complex, abstruse nature, it is generally made: and that more than common justice with common sense is required, in all regulations concerning it.

Perhaps some weighty concerns may have prevented government doing more in regard to coin, than ordering quarter guineas to be made; which till this reign had been done.

But as I judge by the late acts relating to gold coin, that the legislature is roused: possibly they may consider still more of that, as well as of silver coin.

Should these reflections prove of any public utility, my end will be answered.

1. Coins are pieces of metal, on which an impression is struck; which impression is understood by the legislature to ascertain the weight, and the intrinsic value, or worth of each piece.

2. The real value of coins depends not on a piece being called a guinea, a crown, or a shilling: but the true worth of any particular piece of gold, or silver, is what such piece contains of fine or pure gold or silver.

3. Silver and copper being mixed with gold, and copper with silver, are generally understood, to render those metals

durable when circulating in coins: yet air and moisture evidently affect copper, whether by itself or mixed with other metal; whereas pure gold or silver are much less affected or corroded thereby.

4. The quantity of silver and copper so mixed by way of alloy, is fixed by the legislature. When melted with pure metal, or added, or extracted to make a lawful proportion, both gold and silver are brought to what is called standard. This alloy of silver and copper is never reckoned of any value. The standard once fixed, should ever be invariable; since any alteration would be followed by great confusion, and detriment to the state.

5. It is for public convenience, and for facilitating the bartering between mankind for respective wants, coins were invented and made; for were there no coins, gold and silver might be made, or left pure; and what we now call a guinea's worth of any thing, might be cut off from gold, and a crown's worth from silver, and might serve, though not so commodiously as coin.

6. Hence it is evident in whatever shape, form, or quality, these metals are, they are brought to be the most common measure between man and man, serving to barter against, or exchange for, all kinds of commodities; and consequently are no more than an universal accepted merchandise: for gold and silver in bullion, that is to say in an uncoined mass, and gold or silver in coin, being of equal weight, purity, and fineness, must be of equal value, the one to the other: for the stamp on either of these metals, duly proportioned, neither takes from, nor takes from their intrinsic value?

7. The prices of gold and silver as merchandise, must in all countries, other commodities, fluctuate and vary according to the demand; and no detriment can arise therefrom, than from the rise and fall of any other merchandise. When coined, a due proportion of these metals, the one to the other, be not established, the disproportion will be felt and proved; and that metal wherein the excess in the proportion is allowed, will preferably be made use of, either in exportation, or in manufacture; as in the case now, in this kingdom, in regard to silver coin, and which, in some measure, is the occasion of its scarcity.

For so long as 15 ounces and about one fifth of pure silver in Great Britain, are ordained, and deemed, to be equal to 1 ounce of pure gold; whilst in neighbouring states, as France and Holland, the proportion is fixed only 14 and a half ounces of pure silver, to one ounce of pure gold; it is very evident, that our silver when coined, will always be the most acceptable merchandise, by near five in the hundred, and consequently more liable to be taken away, or melted down, than before it received the impression at the mint.

8. 62 shillings only, are ordained by law to be coined from 12 ounces of standard silver: following the proportion here mentioned of 15 one fifth to 14 one half, no regard being necessary as to alloy, 65 shillings should be the quantity out of those 12 ounces.

9. An everlasting invariable fixation for coining, can be made in a medium of the market price of gold and silver, though that medium might with ease be ascertained so as to hinder, either coined gold or silver from becoming a merchandise: for whenever the price shall rise in the medium, so as to give a profit; whatever will be made a merchandise. This in the nature of things, from the exchange, circulation, and fluctuation in trade, cannot be hindered; but assuredly the proportions may be amended by the legislature, and as the proportion between gold and silver is in other nations; so as not to make, in the case, coined silver a merchandise, so much to be preferred to same silver uncoined.

10. What has been said seems to be self-evident; but the following calculations made on the present current price of silver and gold, will serve to prove beyond all doubt, that the proportion now fixed between gold and silver should be altered and fixed as in other countries.

By law, 62 shillings are to be coined out of one pound, or 12 ounces of standard silver. This is 62 pence an ounce. Melt these 62 shillings, and in a bar, this pound weight at market will fetch 68 pence an ounce, or 68 shillings the pound. The difference therefore between coined and uncoined silver in Great Britain is now nine and two thirds per cent.

Out of a pound or 12 ounces of standard gold, 44 guineas and $\frac{1}{4}$ are ordained to be coined. This is 34. 17s. 10 $\frac{1}{2}$ d. an ounce. Now the current market price of standard gold is 34. 19s. an ounce, which makes not quite $\frac{1}{4}$ per cent. difference between the coined and uncoined gold.

The state, out of duties imposed, for the charge of coining, as indeed it ought: for it is for public convenience, as already said, that coins are made. It is the current market price of gold and silver, that must govern the carrying it to the mint. It is absurd to say any one should send gold to be coined that should cost more than 34. 17s. 10 $\frac{1}{2}$ d. an ounce, or silver more than 62 pence the ounce: and, as absurd would be, to pretend, that prices only shall be the constant invariable prices. It is contended that there is not a proper proportion fixed in the value of one metal to another, and this requires alteration.

11. It may be urged, that should the legislature fix the proportion of silver to gold as in other countries, by ordering 65 shillings instead of 62 to be cut out of a pound of stand-

kind, instead of telling over, or weighing metal in coin, or bullion, is a gain of what is most precious in life, which is time. And there is nothing clearer than that those who must be concerned in counting and weighing, being at liberty to employ themselves on other purposes, are an addition of hands in the community.

The idea of the too great extension of credit, by the circulation of paper for money, is evidently as erroneous, as the doctrine of the non-exportation of gold and silver in bullion or coin: for were it not certain, that paper could command the equivalent of its agreed-for value; so that gold and silver in bullion or coin exported, would be returned in the course of trade in some other merchandise; neither paper would be used, or the metals exported. It is by means of the produce of the land, and the happy situation of this island, joined to the industry of its inhabitants, that much adored metals, gold and silver, have been procured: and so long as the sea does not overflow the land, and industry continues, so long will those metals not be wanting. And paper in the general chain of credit and commerce, is as useful as they are: since the issuers or coiners of that paper are understood to have some equivalent to ~~offer~~ for what the paper is valued at: and ~~the~~ metal or coin can do more than ~~its~~ value.

Moreover, ~~the~~ advantages of paper, we must add, that the charge of coining or making it, is by no means proportionate to that of coining of metals: nor is subject to waste by long use, or impaired by adulteration, sweating, or filing, as coins may.

Rules of Health.—From Poor Richard's Almanac, 1742.

Eat and drink such an exact quantity as the constitution of thy body allows of, in reference to the services of the mind.

They that study much, ought not to eat so much as those that work hard, their digestion being not so good.

The exact quantity and quality being ~~out~~, is to be kept to constantly.

Excess in all other things whatever, as well as in meat and drink, is also to be avoided.

Youth, age, and sick, require a different quantity.

And so do those of contrary complexions; for that which is too much for a phlegmatic man, is not sufficient for a choleric.

The measure of food ought to be (as much as possibly may be) exactly proportionable to the quality and condition of the stomach, because the stomach digests it.

That quantity that is sufficient, the stomach can perfectly ~~digest~~ digest, and it sufficeth ~~the~~ nourishment of ~~the~~ body.

A greater quantity of some things may be

eaten than of others, some being of lighter digestion than others.

The difficulty lies, in finding out an exact measure; but eat for necessity, not pleasure; for last knows not where necessity ~~lies~~.

Wouldst thou enjoy a long life, a healthy body, and a vigorous mind, and be acquainted also with the wonderful works of God, labour in the first place to bring thy appetite to

*Rules for a Club formerly established in Philadelphia.**

Previous question, to be answered at every meeting.

HAVE you read over these queries this morning, in order to consider what you might have to offer the Junto touching any one of them? viz.

1. Have you met with ~~any~~ thing, in the author you last read, remarkable, ~~as~~ suitable to be communicated to the Junto? particularly in history, morality, poetry, physic, travels, mechanic arts, ~~or~~ other parts of knowledge?

2. What new story have you lately heard agreeable for telling in conversation?

~~Has~~ any citizen in your knowledge failed in his business lately, ~~and~~ have you heard of the cause?

4. Have you lately heard of ~~any~~ citizen's thriving well, and by what means?

5. Have you lately heard how any present rich man, here or elsewhere, got his estate?

6. Do you know of a fellow-citizen, who has lately done a worthy action, deserving praise and imitation: or who ~~has~~ lately committed an error, proper for us to be warned against and avoid?

7. What unhappy effects of intemperance have you lately observed or heard? of imprudence? of passion? or of any other vice ~~or~~ folly?

8. What happy effects of temperance? of prudence? of moderation? or of any other virtue?

9. Have you or any of your acquaintance been lately sick or wounded? If so, what ~~was~~ used, and what ~~was~~ their effects?

10. Who do you know that are shortly going voyages or journies, if one should have occasion to send by them?

11. Do you think of any thing at present, in which the Junto may be serviceable to mankind? to their country, to their friends, or to themselves?

* This was an early performance. The club held in Philadelphia, was composed of men considerable for their influence and discretion. The chief measures Pennsylvania usually received their first formation in this club, it existed thirty years without the nature of an institution ~~being~~ ~~itself~~. This club gave origin to the American Philosophical Society now existing.

12. Hath any deserving stranger since last meeting, that you heard of? and what have you heard or observed of his character or merits? — whether think you, it lies in the power of the Junta to oblige him, or encourage him as he deserves?

13. Do you know of any deserving young beginner lately set up, whom it lies in the power of the Junta any to encourage?

14. Have you lately observed any defect in the laws of your country, of which it would be proper to move the legislature for an amendment? or do you know of any beneficial law that is wanting?

15. Have you lately observed any encroachment on the just liberties of the people?

16. Hath any body at your reputation lately? and what can the Junta do securing it?

17. Is there any man whose friendship you want, and which the Junta, or any of them, can procure for you?

18. Have you lately heard any member's character attacked, and how have you defended it?

19. Hath any man injured you, from whom it is in the power of the Junta to procure redress?

20. In what manner can the Junta or any of them, assist you in any of your honourable designs?

21. Have you any weighty affair in hand, in which you think the advice of the Junta may be of service?

22. What benefits have you lately received from any man not present?

23. Is there any difficulty in matters of opinion, of justice, or injustice, which you would gladly have discussed in time?

24. Do you see any thing amiss in the present or proceedings of the Junta, which might be amended?

Any person to be qualified, to stand up, and lay his hand on his breast, and be asked these questions, viz.

1. Have you any particular disrespect to any present members? — Answer. I have not.

2. Do you sincerely declare, that you love mankind in general; of what profession or religion soever? — Answer. I do.

3. Do you think any person ought to be harmed in his body, name, or goods, for mere speculative opinions, or external way of worship? — Answer. No.

4. Do you love truth for truth's sake, and will you endeavour impartially to find and receive yourself and communicate it to others? — Answer. Yes.

Questions discussed by the Club.

Is sound an entity or body?

How may the phenomena of vapours be explained?

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Is self-interest the rudder that steers mankind, the universal monarch to whom all are subject?

Which is the best form of government, and what was that form which prevailed among mankind?

Can any one particular form of government suit all mankind?

What is the reason that the tides rise higher in the Bay of Fundy, than the Bay of Delaware?

Is the emission of paper-money safe?

What is the reason that men of the greatest knowledge are not the most happy?

How may the possessions of the Lakes be improved to our advantage?

Why are tumultuous, uneasy sensations, united with our desires?

Whether it ought to be the aim of philosophy to eradicate the passions?

How may smoky chimneys be best cured?

Why does the flame of a candle tend upwards in a spire?

Which is least criminal, a bad action joined with a good intention, or a good action with a bad intention?

Is it inconsistent with the principles of liberty in a free government, to punish a libeller, when he speaks the truth?

Sketch of an English School, for the consideration of the Trustees of the Philadelphia Academy.

It is expected that every scholar, to be admitted into this school, be at least able to pronounce and divide the syllables in reading, and to write a legible hand. None to be received that are under — years of age.

First, or lowest

Let the first class learn the English grammar rules, and at the same time let particular care be taken to improve them in orthography. Perhaps the latter is best done by pairing the scholars: two of those nearest equal in their spelling to be put together. Let these strive for victory; each propounding ten words every day to the other to be spelled. He that spells truly most of the other's words is victor for that day; that victor most days in a month, to obtain a prize, a pretty neat book of some kind, useful in their future studies. This method fixes the attention of children extremely to the orthography of words, and makes them good spellers very early. It is a shame for a man to be so ignorant of this little art, in his own language, as to be perpetually confounding words of like sound and different significations; the consciousness of which defect makes some men, otherwise of good learning and understanding, averse to writing even a common letter.

Let the pieces read by the scholars in this class be short; such as Croxall's fables, and

little [] In giving the lesson, let it be read to them; let the meaning of the difficult words in [] be explained to them: and let them con- [] by themselves before they are called to read to the master or usher, who is to take particular care, that they do not read too fast, and that they duly observe the stops and pauses. A vocabulary of the most usual difficult words might be formed for their use, with explanations; and they might daily get a few of those words and explanations by heart, which would a little exercise their memories; or at least they might write a number of them in a small book for the purpose, which would help to fix the meaning of those words in their minds, and at the same time [] every one with a little dictionary for his future use.

[] Class

To be taught reading with attention, and with proper [] of the voice, according to the sentiment and the subject.

Some short pieces, [] exceeding [] length of a Spectator, to be given this class for lessons (and some of the easier Spectators would be suitable for the purpose). These lessons might [] given every night [] tasks; the scholars [] study them against the morning. Let it [] be required of them to give an account, first of [] parts of speech, and construction of one or two []. This will oblige them [] recur frequently [] their [] and fix [] principal rules in their memory. Next, of the intention of the writer, or the scope of the piece, the meaning of each sentence, and of every [] word. This would early acquaint them with [] meaning [] force of words, and give them that most necessary habit, of reading with attention.

The master then to read the piece with the proper modulations of voice, due emphasis, and suitable action, where action is required: and put the youth [] imitating his manner.

Where the author [] used [] expression not the best, let [] be pointed out; and let his beauties [] particularly remarked to the youth.

Let the lessons for reading be varied, that the youth may be made acquainted with good styles of all kinds, in prose and verse, and the proper manner of reading each kind—sometimes a well told story, a piece of a sermon, a general's speech to his soldiers, a speech in a tragedy, some part of a comedy, an ode, a satire, a letter, blank verse, Hudibrastic, heroic, &c. But let such lessons be chosen for reading, as contain some useful instruction, whereby the understanding or morals of the youth may at the same time be improved.

It is required [] they should [] study and understand [] lessons, before they are put upon reading them properly; to which

[] each boy should have an English dictionary, to help [] over difficulties. When [] boys read English to us, we are apt to imagine they understand what they read, because we do, and because it is their mother tongue. But they often read, [] parrots speak, knowing little or nothing of the meaning. And [] is impossible [] reader should give [] due modulation to [] voice, and pronounce properly, unless his understanding goes before his tongue, [] makes him master of the [] timent. Accustoming boys [] read aloud what they do not first understand, is the cause of those [] tones so common among [] ders, which, when they have once got a habit of using, they [] so difficult to correct: by which means, among fifty readers we scarcely find a good one. For want of good reading, pieces published with [] view to influence the minds of men, for their own or the public benefit, lose half their force. Were there but one good reader in a neighbourhood, a public [] might be heard throughout a nation with the [] advantages, [] have the [] effect upon his audience, [] if they stood within the reach of [] voice.

The Third Class

To [] taught speaking proper and gracefully; which is near akin [] good reading, [] naturally follows it [] the [] of youth. Let the scholars of this class begin with learning the elements of rhetoric from [] short system, so as to be able to give [] account of the most useful tropes and figures. Let all their [] habits of speaking, all offences against good grammar [] all corrupt or foreign accents, and all improper phrases, be pointed out to him. Short speeches from the Roman, or other history, or from the legislative debates, might be got by heart, [] delivered with the proper action, &c. Speeches and scenes in our best tragedies and comedies (avoiding every thing that could injure the morals of youth) might likewise be got by rote, [] the boys exercised in delivering or acting them; great [] being taken [] their manner after the truest models.

For their farther improvement, and a little, to vary their studies, let them now begin to read history, after having got by heart a short [] of the principal epochs in chronology. They may begin with Rollin's Ancient and Roman histories, and proceed [] hours, as they go through the subsequent classes, with the best histories of our own nation and colonies. Let emulation be excited among the boys, by giving, weekly, [] prizes, [] other small encouragements [] those, who are able to give the [] account of what they have read, [] time, places, names of persons, &c. This [] make them read with attention, and imprint the history [] their [] remarking [] history, the master [] have fine opportunities of instil-

ling ~~various~~ various kinds, and improving the morals, as well as ~~understandings~~ understandings, of youth.

The ~~mechanic~~ mechanic history, contained in the *Spectacle* ~~is~~ *Nature*, might also be begun in this class, and continued through the subsequent classes, by other books of the same kind; for, next to ~~knowledge~~ knowledge of duty, ~~kind~~ kind of knowledge is certainly the ~~useful~~ useful, as well as the most entertaining. The merchant may thereby be enabled better to understand many commodities in trade; the handicraftsman, to improve ~~the~~ ~~the~~ by new instruments, mixtures and materials; and frequently hints ~~are~~ given for new ~~factum~~ factum, as ~~methods~~ methods of improving land, that may be set on foot greatly to the advantage of a country.

Fourth Class

To ~~be~~ taught composition. Writing one's own language well, is the ~~necessary~~ necessary accomplishment ~~of~~ good speaking. It is the writing-master's business, to take care ~~the~~ the boys make fair characters, and place ~~straight~~ straight and even in the lines: but to form their style, and even ~~take~~ take care that the stops and capitals are properly disposed, is the part of the English master. The boys should be taught to write letters to each other on any common occurrences, and on various subjects, imaginary business, &c. containing little stories, accounts of their late reading, what parts of authors please them, and why; letters of congratulation, of compliment, of request, of thanks, of recommendation, of admonition, of consolation, of ~~postulation~~ postulation, excuse, &c. In these, they should be taught to express themselves clearly, concisely, and naturally, without affected words or high-flown phrases. All their letters to pass through the master's hand, who is to point out the faults, advise the corrections, and commend what he finds right. Some of the best letters published in our own language, as sir William Temple's, those of Pope and ~~friends~~ friends, ~~some~~ some others, might ~~be~~ set before the youth ~~as~~ as models, their beauties pointed out and explained by the master, the ~~themselves~~ themselves transcribed by the scholar.

Dr. Johnson's ~~Elements~~ Elements, ~~First~~ First Principles of Morality, may now be read by ~~scholar~~ scholar, and explained by the master, to lay a solid foundation of virtue and piety in their minds. And as this class continues the reading of history, let them now, at proper hours, receive some further instruction in chronology, and in that part of geography (from the mathematical master) which is necessary to understand the ~~globe~~ globe. They should also be acquainted with the ~~names~~ names of ~~places~~ places they find mentioned in ancient writers. The exercises of good reading, and proper speaking, ~~will~~ continued at suitable times.

The Fifth Class.

To improve the youth in composition, they may now, besides continuing to ~~write~~ letters, begin to write little essays in prose, and sometimes in verse; ~~to~~ to make them poets, but for this reason, that nothing acquaints a lad so speedily with variety of expression, as the necessity of finding such words ~~and~~ phrases as will suit the measure, sound and rhyme of verse, and at the same time well express the sentiment. These essays should all pass under ~~the~~ master's eye, who will point out ~~the~~ faults, and put the writer on correcting them. Where the judgment is not ripe enough for forming new essays, let the sentiments of a *Spectator* be given, and required to be clothed in the scholar's own words; or the circumstances of some good story, the scholar to find expression. Let them be put sometimes on abridging a paragraph of a diffuse author: sometimes on dilating or amplifying what is wrote more closely. And now let Dr. Johnson's *Nostica*, or *First Principles of Human Knowledge*, containing a logic, or art of reasoning, &c. be read by the youth, and the difficulties, that may occur to them, be explained by the master. The reading of history, and the exercises of good reading and just speaking still continued.

The Sixth Class.

In this class, besides continuing the studies of the preceding in history, rhetoric, logic, moral and natural philosophy, the best English authors may be read and explained; as Tillotson, Milton, Locke, Addison, Pope, Swift, the higher papers in the *Spectator* and *Guardian*, the best translations of Homer, Virgil, and Horace, of Telemachus, Travels of Cyrus, &c.

Once a year, let there be public exercises in the hall; the trustees and citizens present. Then let fine bound books be given as prizes to such boys, as distinguish themselves, and excel the others in any branch of learning, making three degrees of comparison: giving the best prize to him, that performs best; a ~~valuable~~ valuable one to him, that comes up ~~to~~ to the best, and another to the third. Commendations, encouragement, and advice to the rest; keeping up their hopes, that, by industry, they may excel another time. ~~And~~ of those, ~~who~~ obtain the prize, to be yearly printed in a list.

The hours of each day are to be divided and disposed in such a manner, as ~~some~~ some classes may be with ~~the~~ writing-master, improving their hands; others with the mathematical master, learning arithmetic, accounts, geography, use of the globes, drawing, ~~chanica~~ chanica, &c. while the rest are ~~in~~ the English school, under the English master's care.

~~The~~ instructed youth will come out of this school fitted for learning any business, calling, or profession, except such wherein languages are required: and, though unac-

quainted with any aliquid or foreign tongue, they will be masters of their own, which is of more immediate and general use, and which will have attained many other valuable accomplishments: the time usually spent in acquiring those languages, often without success, being here employed in laying such a foundation of knowledge and ability, as, properly improved, may qualify them to pass through and execute the several offices of civil life, with advantage and reputation to themselves and country.

■ **Discoveries.**—From the Pennsylvania Gazette, No. ■ Oct. 14, ■

'Twas world but a few ages since, was in a very poor condition, as to trade and navigation, nor indeed, were they much better in other matters of useful knowledge. It was a green headed time, every useful improvement was hid ■ them, they had neither looked into heaven, nor earth, into the sea, nor land. ■ has been done since. They had philosophy without experiments, ■ without instruments, geometry without scale, astronomy without demonstration.

They made ■ without powder, shot, cannon or mortars; nay, the mob made their bonfires without aquibs, or crackers. They ■ ■ without ■ and ■ without the needle. They viewed the stars, without telescopes, and measured latitudes without observation. Learning had no printing-press, writing no paper, and paper no ink; the lover was forced to send his mistress a deal board for a love-letter, and a billet doux might be the size of an ordinary trencher.—They were clothed without manufacture, and their richest robes were the skins of the most formidable monsters; they carried on trade without books, and correspondence without posts; their merchants kept no accounts, their shop-keepers ■ cash-books, they had surgery without anatomy, and physicians without the *materia medica*, they gave emetics without ipecacuanha, drew blisters without cantharides, and cured agues without the bark.

As for geographical discoveries, they had neither seen the North Cape, nor the Cape of Good Hope south. ■ the discovered ■ world, ■ they knew and conversed with, ■ circumscribed within very narrow limits, viz. France, Britain, Spain, Italy, Germany, and Greece; the Lesser Asia, the ■ part of Persia, Arabia, the ■ parts of Africa, and the islands of the Mediterranean sea, and this was the whole world to them; not that even these countries were fully known neither, and several parts of them not inquired into at all. Germany was known little farther than the banks of the Elbe; Poland as little beyond the Vistula, or Hungary a little beyond the Danube; Muscovy or Rus-

sia, perfectly unknown as much as China, beyond it, and ■ only by a ■ commerce upon the coast, about Surat and Malabar. Africa ■ been more unknown, but by the ruin of the Carthaginians, all the western coast of it was sunk ■ of knowledge again, and forgotten; the northern coast of Africa, in the Mediterranean, remained known, ■ that was all, ■ the Saracens ■ the nations which were plan ■ there, ruined ■ as well as religion; the ■ Sea was not discovered, nor ■ navigation of it known; for the Teutonic knights ■ so, thither till the ■ century.

America was not heard of, nor so much as a suggestion in the ■ of men, that any part of the world lay ■ way. The coasts of Greenland, or Spitsbergen, ■ the whale-fishing, ■ known; the best navigators in the world, at that time, would have fled from ■ whale, with much more fright ■ horror, than from the devil, in the most terrible shapes they had been told he appeared in.

The ■ of Angola, Congo, ■ Gold and the Grain coasts, on the west side of Africa, from whence, since that time, such immense wealth has been drawn, ■ discovered, nor the least inquiry made after them. All the East India and China trade, not only undiscovered, but ■ of the reach of expectation! Coffee and ■ (those modern blessings of mankind) had never been heard of: all the unbounded ocean, we now call the South Sea, hid, and unknown; all the Atlantic Ocean, beyond the mouth of the Straights, was frightful and terrible in the distant prospect, nor durst any ■ peep ■ it, otherwise than as they might ■ along the coast of Africa, towards Salée, or Santa Cruz.

The North Seas was hid in a veil of impenetrable darkness; the White Sea, or Arch Angel, ■ very modern discovery; ■ found out till sir Hugh Willoughby ■ the North Cape, and paid dear for the adventure, being frozen to ■ with all ■ on the coast of Lapland; while his companion's ship, with the famous Mr. Chancellor, ■ on the Gulph of Russia, ■ the White Sea, where no Christian strangers had ever been before him.

In these narrow circumstances stood the world's knowledge ■ beginning of the 15th century, when ■ of genius began to look abroad and about them. Now, as it was wonderful to see world so full of people, and people so capable of improving, yet so stupid, and so blind, so ignorant, and so perfectly unimproved; it was wonderful to see, with what a general alacrity they took the alarm, almost all together, preparing themselves as it ■ on a sudden, by a general inspiration, ■ spread knowledge through the earth, and to search into every thing, that it was impossible to uncover.

How surprising is it to look back, so little a way behind us, and see, that even in less than two hundred years, all this (now so self-wise) part of the world did not so much as know, whether there was any such place, as Russia, a China, a Guinea, a Greenland, or a North Cape! That as to America, it was never supposed, there any such place, neither had the world, though they stood upon the shoulders of four thousand years' experience, the least thought, so much as that there was any land that way!

As they were ignorant of places, of things also; so vast are the improvements of science, all knowledge of mathematics, of nature, of the brightest part of human wisdom, had their admission among us within these last centuries.

What the world then, before? And what the heads and hands of mankind applied? The rich had no commerce, the poor employment; war and the sword was the great field of honour, the stage of preferment, and you have a man eminent in the world, for any thing before that time, but a furious outrageous falling upon his fellow-creatures, like Nimrod, and his of modern memory.

The world now daily increasing in experimental knowledge; and let no man flatter the age, with pretending have arrived to a perfection of discoveries.

What is now discovered, only serves to show, That nothing's known, to what as yet to know.

On the Usefulness of the Mathematics.—
From the Pennsylvania Gazette, No. 300,
Oct. 11, 1783.

MATHEMATICS originally signifies any kind of discipline in learning, but now it is taken for that science, which teaches or contemplates whatever is capable of being numbered or measured. That part of the mathematics which relates numbers only, is called *arithmetic*; and that which is concerned about measure in general, whether length, breadth, motion, force, &c. is called *geometry*.

As to the usefulness of arithmetic, it is well known in business, commerce, trade, or employment whatsoever, even from the merchant to the shopkeeper, &c. can be managed and carried on, without assistance of numbers; for by these the trader computes the value of all of goods that he dealeth in, does his business with ease and certainty, and informs himself how matters stand at any time with respect to money, or merchandise, profit loss, whether he goes forward or backward, grows richer or poorer. Neither this science only to the merchant, he reckoned the *primum mobile* (or first mover) of the mundane in general, is

is useful for all sorts and degrees of men, from the highest to the lowest.

As to the usefulness of geometry, it is as certain, that no curious art or mechanic work, can either be invented, improved, or performed, without its assisting principles.

It is owing to this, that we put into a way of making their observations, coming at the knowledge of the extent of the heavens, the duration of time, the motions, magnitudes, and distances of the heavenly bodies, their situations, positions, ranges, tings, aspects, and eclipses; also the measure of seasons, of years, and of ages.

It is by the assistance of this science, geographers present our view once, the magnitude and form of the whole earth, the vast extent of the seas, the divisions of empires, kingdoms, and provinces.

It is by the help of geometry, the ingenious mariner is instructed how to guide a ship through the vast ocean, from one part of the earth to another, the shortest way, and in the shortest time.

By help of this science the architects take their just for the structure of buildings, as private houses, churches, palaces, ships, fortifications, &c.

By its help engineers conduct all their works, take the situation of plan of towns, forts and castles, measure their distances from one another, and carry their measure into places that are only accessible to the eye.

From hence also is deduced that admirable art of drawing sun-dials on any plane whatsoever situate, and for any part of world, to point out the exact of the day, sun's declination, altitude, amplitude, azimuth, and other astronomical matters.

By geometry, the surveyor is directed how to draw a map of any country, to divide his lands, and to lay down and plot any piece of ground, and thereby discover the area acres, rods, and perches. The gauger is instructed how the capacities or solid contents of kinds of vessels, in barrels, galleons, bushels, &c. And the is furnished with rules for finding the areas contents of superficies and solids, casting up all manner of workmanship. All these many arts, too many to be enumerated here, wholly depend the the said sciences, viz. arithmetic and geometry.

This science is descended from the infancy of the world, the inventors of which the first propagators of human kind, as Adam, Noah, Abraham, Moses, divers others.

There has been any science so much esteemed and honoured this of the mathematics, nor with so much industry and vigilance become the of great men, and laboured in by the potentates of world, viz. kings, princes, &c.

Mathematical demonstrations, are a logic of as much or more use, than that commonly learned at schools, serving to a just formation of the mind, enlarging its capacity, and strengthening it so, as to render the same capable of exact reasoning, and discerning truth from falsehood in all occurrences, even subjects not mathematical. For which reason it is said, the Egyptians, Persians, and Lacedæmonians, seldom ~~learned~~ ^{taught} new kings, but such as had some knowledge in the mathematics, imagining those who had not, men of imperfect judgments, unfit to rule and govern.

Though Plato's censure, that those who did not understand the 13th proposition of the 13th ~~book~~ ^{book} of ~~Euclid's~~ ^{Euclid's} Elements, ought not to be ranked amongst rational creatures, was unjust; yet to give a ~~man~~ ^{man} character of universal learning, who is ~~destitute~~ ^{destitute} of a competent knowledge in the mathematics, is no less so.

The ~~study~~ ^{study} of some particular parts of the mathematics in ~~the~~ ^{the} affairs of human life, has rendered some knowledge of them very necessary to a great part of mankind, and very convenient to all the rest that are any way conversant beyond the limits of their own particular callings.

Those whom necessity ~~obliged~~ ^{obliged} to get their bread by manual industry, where some degree of art is required to go along with it, and who have had some insight into these studies, have very often found advantages from them sufficient to reward the pains they were at in acquiring them. And whatever may have been imputed ~~to~~ ^{to} other studies, under the notion of insignificance and loss of time, yet these, I believe, ~~caused~~ ^{caused} repentance in any, except ~~those~~ ^{those} for their remissness in ~~the~~ ^{the} prosecution of them.

Philosophers do generally affirm, that human knowledge to be most excellent, which is conversant amongst ~~the~~ ^{the} most excellent things. What science then can there be, more noble, ~~more~~ ^{more} excellent, ~~more~~ ^{more} for ~~more~~ ^{more} admirably high and demonstrative, than ~~the~~ ^{the} of the mathematics.

I ~~conclude~~ ^{conclude} with what Plato says, lib. 7. of ~~the~~ ^{the} Republic, with regard to the excellence and usefulness of geometry, being ~~in~~ ⁱⁿ this purpose:

"Dear Friend—You see then that mathematics ~~are~~ ^{are} necessary, because by the exactness of the method, we get a habit of using our minds to the best advantage: and it is remarkable, that all ~~being~~ ^{being} capable by nature to reason and understand the sciences; the less acute, by studying this, though useless to them in every other respect, will gain this advantage, ~~that~~ ^{that} their minds will be improved ~~in~~ ⁱⁿ reasoning aright; for no study employs it more, nor makes it susceptible of attention so much; and these who we find have

a mind worth cultivating, ought to apply themselves to this study."

Causes of Earthquakes.—From the Pennsylvania Gazette, No. 470, Dec. 15, 1737.

Two late earthquake felt here, and probably in all the neighbouring provinces, have made many people desirous to know what may be the natural cause of such violent convulsions; we shall endeavour to gratify their curiosity by giving them the various opinions of the learned on that head.

Here naturalists are divided. Some ascribe them to water, others to fire, and others to air: and all of them with some appearance of reason. To ~~which~~ ^{which}, it ~~is~~ ^{is} ~~to~~ ^{to} be observed, that the earth every where abounds in huge subterraneous ~~veins~~ ^{veins} and canals, particularly about the ~~of~~ ^{of} mountains: ~~of~~ ^{of} these cavities, veins, &c. ~~are~~ ^{are} full of water, whence are composed gulphs, abysses, springs, rivulets; and others full of exhalations; ~~that~~ ^{that} ~~some~~ ^{some} parts of the earth are replete with nitre, sulphur, bitumen, triol, &c.

This premised 1. The earth itself may sometimes be the ~~cause~~ ^{cause} of its ~~own~~ ^{own} shaking; when the roots or basis of some large mass being dissolved, or worn away by a ~~flow~~ ^{flow} underneath, it sinks into the same; and with its weight, ~~causes~~ ^{causes} a ~~pressure~~ ^{pressure} of the adjacent parts; produces a noise, and frequently an inundation of water.

2. The subterraneous waters may occasion earthquakes, by their overflowing, cutting out new courses, &c. Add, that the water being heated and rarefied by the subterraneous fires, may emit fumes, blasts, &c. which by their action, either ~~on~~ ^{on} the ~~earth~~ ^{earth} or immediately on the earth itself, may ~~cause~~ ^{cause} great succussions.

3. The air may ~~be~~ ^{be} the ~~cause~~ ^{cause} of earthquakes: for the air being a collection of fumes and vapours raised from the earth and water; ~~it~~ ^{it} ~~is~~ ^{is} ~~peopled~~ ^{peopled} in too ~~many~~ ^{many} viscera of the earth, the subterraneous, ~~its~~ ^{its} own ~~heat~~ ^{heat}, rarefying and expanding it, ~~the~~ ^{the} force wherewith ~~it~~ ^{it} endeavours ~~to~~ ^{to} escape, may shake the earth: hence there arise divers species of earthquakes, according to the ~~position~~ ^{position}, quantity, ~~the~~ ^{the} imprisoned aura.

Lastly, ~~the~~ ^{the} ~~is~~ ^{is} a principal cause of earthquakes; for as it produces the aforesaid subterraneous aura or vapours; and as this aura, or spirit, from the different matter and composition wherof arise sulphur, bitumen, and other inflammable matters, takes fire, either from some other fire it meets withal, or ~~its~~ ^{its} collision against hard bodies, or its intermixture with ~~some~~ ^{some} fluids; by ~~the~~ ^{the} means, bursting out into a greater compass, the place becomes too narrow for it; so that pressing against it on all sides, the adjoining parts are

shaken; till having made itself a passage, it spends itself in a volcano, burning mountain.

But to come nearer to the point. Dr. Lister is of opinion, that the [redacted] of thunder, lightning, [redacted] earthquakes, is one and the same, viz. the inflammable breath of the pyrites, which is a substantial sulphur, and takes fire of itself.

The difference between these three terrible phenomena, he takes only to consist in this; that this sulphur, in the former, is fired in the air; and in the latter under ground: which is a notion that Pliny had long before him: *Quidem, says he, aliud est in terra tremor, quam in nube tonitruum?*

This he thinks abundantly indicated by the same sulphurous [redacted] being [redacted] in any thing burnt with lightning; [redacted] in the waters, &c. cast up in earthquakes, and even in the air before and after them.

Add, that they agree in the manner of the noise; which is carried on, as in a train, fired; the one rolling and rattling through the air, takes fire as the vapours chance to drive; as the other fired under ground, in like manner, [redacted] with a desultory [redacted]

Thunder, which is the effect of the [redacted] bling of the air, caused by the same vapours dispersed through [redacted] it, has force enough to shake our houses; and why may not there be thunder and lightning under ground, in some vast repositories there, I see no reason. Especially if we reflect, that the matter which composes the noisy vapour above us, is in much larger quantities under ground.

That the earth abounds in cavities, every body allows; and that these subterraneous cavities, [redacted] at certain times, and in certain [redacted] [redacted] inflammable vapours, [redacted] damps in mines sufficiently witness, which fired, do every thing [redacted] an earthquake, [redacted] in a lesser degree.

Add, that the pyrites alone, of all the known minerals, yields this inflammable vapour, is highly probable: for that no mineral or ore, whatsoever, is sulphurous, but as it is wholly, or in part, a pyrites; and that there is but one species of brimstone, which the pyrites naturally and only yields. The sulphur vive, or natural brimstone, which is found in and about the burning mountains, is certainly the effects of sublimation; and those great quantities of it said to be found about the skirts of volcanoes, is only an argument of the long duration and vehemence of those fires; possibly, the pyrites of the volcanoes, or burning mountains, may be more sulphurous than ours: and indeed it is plain, that some of ours in England are very lean, and hold but little sulphur; [redacted] again very much; which may be one reason why England is so [redacted] troubled with earthquakes; and Italy, and almost all round the Mediterranean sea, so very much: though

[redacted] reason is, the paucity of pyrites in England.

Comparing our earthquakes, thunder and lightning with theirs, it is observed, that there it lightens almost daily, especially in summer-time, here seldom; there thunder and lightning is of long duration, here it is soon over; there the earthquakes are frequent, long and terrible, with many paroxysms in a day, and that for many days; here very short, a few minutes, and scarce perceptible. To this purpose the subterraneous caverns in England are small and few compared to the vast vaults in those parts of the world; which is evident from the sudden disappearance of whole mountains and islands.

Dr. Woodward gives us another theory of earthquakes. [redacted] endeavours [redacted] show, that the subterraneous heat, or fire (which is continually elevating water out of the abyss, to furnish the earth with rain, dew, springs and rivers) being stopped in any part of the earth, and so diverted from its ordinary course, by some accidental glut or obstruction in the pores or passages, through which it used to ascend to the surface; becomes, by such means, preternaturally assembled in a greater quantity than usual into [redacted] place, and therefore causeth a great rarefaction and intumescence of the water of the abyss; putting [redacted] into great commotions and disorders, and [redacted] the same time making the like effort on the earth; which being expanded upon the face of the abyss, occasions that agitation and concussion we call an earthquake.

This effort in some earthquakes, he observes is so vehement, that it splits and tears the earth, making cracks and chasms in it some miles in length, which open at the instant of the shock, and close again in the intervals betwixt them: nay, it is sometimes so violent, that it forces the superincumbent strata, breaks them all throughout, and thereby perfectly undermines and ruins the foundation of them; so that those failing, the whole tract, as soon as the shock is over, sinks down into the abyss; and [redacted] swallowed up by it; the water thereof immediately rising up and forming a lake in the place, where the said tract before [redacted] That this effort being made in all directions indifferently, the fire dilating and expanding on all hands, and endeavouring to get room, and make [redacted] way through all obstacles, falls as foul on the waters of the abyss beneath, as on the earth above, forcing it forth, which way soever it can find vent or passage, as well through its ordinary exits, wells, springs, and the outlets of rivers, as through the chasms then newly opened; through the camini or spiracles of *Ætna*, or other neighbouring volcanoes; and these hiatuses at the bottom of the sea, whereby the abyss below opens into it and communicates with it. That as the water resident

in the abyss is, in all parts of it, stored with a considerable quantity of heat, and more especially in those where those extraordinary aggregations of this fire happen, so likewise is the water which is thus forced out of it; inasmuch that when thrown forth and mixed with the waters of wells or springs of rivers, and the sea, it renders them very sensibly hot.

He adds, that though the abyss be liable to those commotions in all parts; yet the effects are no where very remarkable except in those countries which are mountainous, and consequently more or less underneath; especially in the disposition of the earth in such, that those caverns open into the abyss, and so freely admit and entertain the fire; which assembling therein is the cause of the shock: it naturally steering its course that way where it finds the readiest reception, which is towards those caverns. Besides, that the parts of the earth which abound with strata of stone or marble, making the strongest opposition to this effort, the most furiously shattered; and suffer much more by it, than those which consist of gravel and sand, and the like laxer matter, which more easily give way, and make not so great resistance; but, above all, those countries which yield great store of sulphur and nitre, are, by far, the most injured by earthquakes; those minerals constituting in the earth a kind of natural gunpowder, which taking fire upon this assemblage, and approach of it, occasions that murmuring noise, that subterraneous thunder, which is heard rambling in the bowels of the earth during earthquakes, and by the assistance of its explosive power, renders the shock much greater, so as sometimes to make miserable havoc and destruction.

And it is in Italy, Sicily, Anatolia, and some parts of Greece, have been so long, and often alarmed and harassed by earthquakes; those countries being all mountainous and abounding with stone and marble, and affording sulphur and nitre in great plenty.

Further, Aetna, Vesuvius, Hæcla, and the other volcanoes, are only so many spiracles, serving to discharge of this subterranean fire, when it is preternaturally assembled. That where there happens to be such a structure and conformation of the interior parts of the earth; as that the fire may pass freely, and without impediment, from the place wherein it assembles unto those spiracles: it then readily and easily gets out from time to time, without shaking or disturbing the earth: but where such communication is wanting, or passage not sufficiently large and open, so that it cannot come at the spiracles, it heaves up and shocks the earth with greater or lesser impetuosity, according to the quantity of fire thus assembled, till it has made its way to the mouth of the

volcano. Therefore there are scarce any countries so much annoyed by earthquakes, but have one of these fiery vents; which constantly in flames when any earthquake happens; as disgorging that fire, which is underneath the cause of the disaster. Lastly, that it is not for the disservice, it would be in the bowels of the earth much more furiously, and make greater havoc than it doth.

We have seen what fire and water may do, either of them are sufficient for the phenomena of earthquakes; if they should both fail, we have a third agent, scarce inferior to either of them: the reader must not be surprised when we tell him it is air.

Mons. Amontons, in *Memoires de l'Acad. des Sciences*, An. 1703, has an express discourse to prove, that on the foot of the new experiments of the weight and spring of the air, a moderate degree of heat brings the air into a condition capable of causing earthquakes. It is shown, that the depth of 43,528 fathoms below the surface of the earth-air is only one fourth less heavy than mercury. Now, this depth of 43,528 fathoms is only a small part of the semi-diameter of the earth. And the vast sphere beyond this depth, in diameter 6,451,599 fathoms, may probably be only filled with air; which will be here greatly condensed, and much heavier than the heaviest bodies we know in nature. But it is found by experiment, that the more air is compressed the more does the mine degenerate of heat increase its spring, and the more capable does it render it of a violent effect; and that, for instance, the degree of heat of boiling water increases the spring of the air above what it is in its natural state, in our climate, by a quantity equal to a third of the weight wherewith it is pressed. Whence we may conclude, that a degree of heat, which on the surface of the earth, will only have a moderate effect, may be capable of a very violent one below. And we are assured, that there are in nature degrees of heat, much more considerable than that of boiling water: it is very possible there may be some whose violence, further assisted by the exceeding weight of the air, may be more than sufficient to break and overturn this solid orb of 43,528 fathoms; whose weight, compared to that of the included air, would be but a trifle.

Chemistry furnishes us a method of making artificial earthquakes, which shall have all the great effects of natural ones which, as it may illustrate the process of nature in the production of those terrible phenomena under ground, we shall here describe.

To twenty pounds of iron filings, add us many of sulphur: mix, work, and temper the whole together with a little water, so as to form a mass, half moist and half dry. This being buried three or four feet under ground, in

six or seven hours time, will have a prodigious effect: the earth will begin to tremble, crack and smoke, and fire and flame burst through.

Such is the effect even of the two cold bodies, in cold ground: there only wants a sufficient quantity of this mixture to produce a true *Ætna*. If it were supposed to burst out under the sea, it would produce a spout. And if it were in the clouds, the effect would be thunder and lightning.

An earthquake is defined to be a vehement shake, an agitation of some considerable place, part of the earth; from natural causes; attended with a huge noise like thunder, frequently with an eruption of water, or fire, or smoke, or winds, &c.

They are the greatest and most formidable phenomena of the world. Aristotle and Pliny distinguish three kinds, with respect to the direction of the shake, viz. a tremor and a pulsation; the first being horizontal, in alternate vibrations, compared to the motion of a person in a gale. The second perpendicular, up and down, their motion resembling that of boiling.

Agricola increases the number, and adds four kinds, which Alb. Magnus again reduces to three, viz. inclination, when the earth liberates alternately from right to left; by which mountains have been sometimes brought to meet, and clash against each other: pulsation, when it beats up and down like an artery: and trembling, when it shakes and totters every way, like a flame.

The Philosophical Transactions furnish us with abundance of histories of earthquakes; particularly one at Oxford, in 1663, by Dr. Wallis and Dr. Boyle. Another at the same place in 1693, by Mr. Pigot. Another in Sicily, in 1693, by Dr. Harton. Fa. Alessandro Borgia, and Vin. Bonajutus, which last is one of the most terrible ones in all history.

It shook the whole island; and not only that, but Naples and Malta shared in the shock. It was of the second kind mentioned by Aristotle and Pliny, viz. a perpendicular pulsation, in succession. It was impossible, says the noble Bonajutus, for any body, in this country, to keep on their legs, on the dancing earth; nay, those that lay on the ground, were moved from side to side, as on a rolling billow: high houses leaped from their foundations several paces.

The mischief it did was amazing: almost all the buildings in the country were thrown down. Fifty-four cities and towns, besides an incredible number of villages, were either destroyed or greatly damaged. We have only instance of the fate of Catania, one of the most famous, ancient, and flourishing cities in the kingdom; of the residence of several monarchs, and of a university. Catania, now unhappy Catania, to use the words of Fa. Burgos, had the greatest share in the tragedy.

Fa. Anthon. Scrovia, being on his way thither, and at the distance of a few miles, observed a black cloud, like night, hovering over the city; and there arose from the mouth of Mongibello, great spires of flame, which spread all around. The sea all of a sudden began to roar, and rise in billows; and there was a blow, as if all the artillery in the world had been at once discharged.

The people fled, the cattle in the fields ran crying, &c. and his companion's horse stopped short, trembling; so they were forced to alight. They did not sooner off, but they were lifted from the ground above two palms; when casting his eyes towards Catania, he with astonishment saw nothing but a thick cloud of dust in the air. This was the scene of their calamity: for of the magnificent Catania, there is not the least footstep to be seen. Bonajutus assures us, that of 15,914 inhabitants, 18,000 perished therein. The same author, from a computation of the inhabitants, before and after the earthquake, in the several cities and towns, finds that near 60,000 perished out of 234,900.

Jamaica is remarkable for earthquakes. The inhabitants, Dr. Hume informs us, expect one every year. That author gives us the history of one in 1637: another horrible one in 1692, described by several anonymous authors. In a few minutes time it fell down and drowned nine tenths of the people of Port Royal. The houses sunk outright, thirty or forty fathoms deep. The earth opening, swallowed up people; and they rose in other streets; in the middle of the harbour, yet were saved; though there were 2000 people lost, and 1000 of land sunk. All the houses were thrown down throughout the island. One Hopkins had his plantation removed half a mile from its place. Of all wells, from one fathom to six or seven, the water flew out to the top with a vehement motion. The houses, on the side of the bay, were swallowed up, on the other they were thrown on heaps; and the sand in the street rose like waves in the sea. lifting every body that stood on it, and immediately dropping down into pits; and at the same instant, a great number of houses breaking in, rolled them over and over; some catching hold of beams and rafters, &c. Ships and sloops in the harbour were upset and lost; the Spanish frigate particularly, by the motion of the sea, and sinking of the wharf, was driven over the tops of many houses. It attended with a hollow rumbling noise, that of thunder. In less than a minute three quarters of the houses, and the ground they stood on, the inhabitants, were all sunk quite under water: and the little part, left behind, was no better than a heap of rubbish. The shake was so violent, that it threw people down on their knees, or their faces, as they

were running about for shelter. The ground [redacted] and swelled like a rolling sea, and several houses still standing, were shuffled and moved some yards out of their places. A whole street [redacted] said to be twice as broad now as before; and in many places the earth would crack, and open, and shut, quick and fast. Of which openings, two or three hundred might be seen at a time: in some whereof, the people were swallowed up; others, the closing earth caught by the middle, and pressed to death; in others, the heads only appeared. The larger openings swallowed up houses; and out of some would issue whole rivers of waters, spouted up a great height into the air, and threatening a deluge to that part the earthquake spared. The whole was attended with stench and offensive smells, the noise of falling mountains at a distance, &c. and the sky in a minute's time, was turned dull and reddish, like a glowing oven.—Yet, as great a sufferer as Port Royal was, more houses were left standing therein, than on the whole island beside. Scarce a planting house, or sugar work was left standing in all Jamaica. A great part of them were swallowed up, houses, people, trees, and [redacted] at one gap: in lieu of which afterwards, appeared great pools of water, which when driven up, left nothing but sand, without any mark that ever tree or plant had been thereon. Above twelve miles from the sea, the earth gaped and spouted out, with a prodigious force, vast quantities of water into the air: yet the greatest victims were among the mountains and rocks: and it is a general opinion, that the nearer the mountains, the greater the shake; and that the cause thereof lay there. Most of the rivers were stopped up for twenty-four hours, by the falling of the mountains, till swelling up, they found themselves new tracts and channels, tearing up in their passage trees, &c. After the great shake, those people who escaped, got on board ships in the harbour, where many continued above two months; the shakes all [redacted] time being so violent, and coming so thick, sometimes two or three in an hour accompanied [redacted] frightful noises like a ruffling wind, [redacted] hollow [redacted] thunder, with brimstone blasts, that they did [redacted] ashore. [redacted] [redacted] of the earthquake was a general sickness, from [redacted] noisome vapours belch[redacted] forth, which swept away above 3000 persons.

After the detail of [redacted] horrible convulsions, the reader will have [redacted] little curiosity left, for the less considerable phenomena of the earthquake at Lima, in 1687, described by Fa. Alvarez [redacted] Toledo, wherein [redacted] 5000 persons were destroyed; this being of the vibratory kind, so that the bells in the church rung of themselves: or that at Batavia [redacted] 1699, by Witzen: that in the north of

England in 1703, by Mr. Thoresby: or [redacted] those in New England in 1663, and 1670, by Dr. Mather.

[redacted] Men.—From the Pennsylvania Gazette, No. [redacted] September 3, 1730.

THE following [redacted] dialogus between Socrates, the great Athenian philosopher, [redacted] one Glaucon a private man of [redacted] abilities, [redacted] ambitious of being chosen a senator, [redacted] of governing the republic; wherein Socrates, [redacted] pleasant manner, convinces him of his incapacity for public affairs, by making him sensible of his ignorance of [redacted] interests of his country, in [redacted] several branches, and entirely [redacted] them [redacted] any attempt of [redacted] nature. There is also added, [redacted] the end, part of another dialogus, the same Socrates had with [redacted] Charmidas, a worthy man, but too modest, wherein he endeavours [redacted] persuade him [redacted] put himself forward and undertake public business, as being very capable of it. The whole [redacted] [redacted] Xenophon's Memorable Things of Socrates, [redacted] 3.

A certain man, whose name [redacted] Glaucon, the son of Ariston, had so fixt it in his [redacted] govern the republic, that he frequently presented himself before the people to dis-course of the affairs of state, though all the world laughed at him for it; nor was it in the power of his relations or friends to dissuade him from that design. But Socrates [redacted] a kindness for him, on account of Plato his brother, and he only it [redacted] who made him change his resolution; he met him, and accosted him in so winning [redacted] manner, that he first obliged him to hearken [redacted] his discourse. [redacted] began with him thus: You have a mind then to govern the republic! I have [redacted] answered Glaucon. You cannot, replied Socrates, have [redacted] more noble design; for [redacted] you [redacted] accomplish [redacted] so as to become absolute, you will be able [redacted] your friends, you will raise your family, you will extend the bounds of your country, you will be known, [redacted] only in Athens, but through [redacted] Greece, and perhaps your renown will fly [redacted] the barbarous nations, as did that of Themistocles. In short, wherever you [redacted] you [redacted] have the respect and admiration of all [redacted] world. These words soothed Glaucon, [redacted] him [redacted] give ear to Socrates, who went on in this manner. But it is certain, that if you desire to be honoured, you must be useful to [redacted] [redacted] Certainly, said Glaucon. And in the name of all the gods, replied Socrates, tell me, [redacted] is [redacted] first service [redacted] you intend [redacted] render the [redacted] Glaucon [redacted] considering what to [redacted] [redacted] when [redacted] continued. If you design to make the fortune of one of your friends, you would endeavour [redacted] make [redacted] rich, and [redacted] perhaps you will [redacted] make it your business to enrich the republic! [redacted] would, an-

Socrates replied: not the way to the republic be to increase its revenue? It is very likely it would, said Glaucon. Tell me then in what consists of state, and how much it may amount? I presume you have particularly studied this matter, to the end that if any thing should be lost on one hand, you might know where to make good on another, and that if a fund should fail suddenly, you might immediately to another in its place? I protest, answered Glaucon, I have never thought of this. Tell me at least the expenses of the republic, for no doubt you intend to retrench the superfluous? I never thought of this neither, said Glaucon. You best then to put off to another time your design of enriching the republic, which you can never be able to do, while you are ignorant both of its expenses and revenue. There is another way to enrich a state, said Glaucon, of which you take no notice, and that by the ruin of its enemies. You are in the right, answered Socrates: but to this end, it is necessary to be stronger than they, otherwise we shall run the hazard of losing what we have: he therefore who talks of undertaking a war, ought to know the strength on both sides, to the end that if his party be the stronger, he may boldly advise for war, and that if it be the weaker, he may dissuade the people from engaging themselves in so dangerous an enterprise. All this is true. Tell me then, continued Socrates, how strong our forces are by sea and land, and how strong are our enemies? Indeed, said Glaucon, I cannot tell you on a sudden. If you have a list of them in writing, pray show it me, I should be glad to hear it read. I have it not yet. I see then, said Socrates, that we shall not engage in war soon: for the greatness of the undertaking will hinder you from maturely weighing all the consequences of it in the beginning of your government. But, continued he, you have thought of the defence of the country, you know what garrisons are necessary, and what are not; you know what number of troops is sufficient in one, and not sufficient in another: you will cause the necessary garrisons to be reinforced, and will disband those that are useless? I should be of opinion, Glaucon, to leave none of them on foot, because they ruin a country, on pretence of defending it. But, Socrates objected if all garrisons were away, there would be nothing to hinder the first comer from carrying off what he pleased: but how come you to know that the garrisons behave themselves as you say? Have you been upon place, have you seen them? Not at all; but I suspect it to be so. When therefore we are certain of it, Socrates, and can speak upon better grounds than simple conjectures, we will propose this advice to the senate. It may

be well to do so, said Glaucon. comes in mind, too, continued Socrates, that you have never been at the mines of silver, to examine why they bring in so much now they did formerly. You are true, I have never been there. Indeed they say the place is unhealthy, that you. You rally me now, Glaucon. Socrates added; but I believe you have at least observed how much corn lands produce, how long it will serve to supply our city, and how much more shall want for the whole year; to the end you may be surprised with scarcity of bread, but may give timely orders for the necessary provisions. There is a deal to do, Glaucon, if we take care of these things. There is, replied Socrates, it is even impossible to manage our own families well, unless we know all that is wanting, and take care to provide it. As you see, therefore, this city is composed of above ten families, and being a difficult task to watch over them all once, why did you first try to retrieve your uncle's affairs which are running to decay, and after having given that proof of your industry, you might have taken a greater trust upon you? But now, when you yourself incapable of aiding a private man, how do you think of behaving yourself so as to be useful to a whole people? ought a man who has not strength enough to carry a hundred pound weight, undertake to carry a heavier burden? I would have done good service to my uncle, Glaucon, if he would have taken my vice. How! replied Socrates, have you not hitherto been able to govern the mind of your uncle, and do you believe yourself able to govern the minds of all the Athenians, and his among the rest? Take heed, my dear Glaucon, take heed lest too great a desire of power should render you despised; consider how dangerous it is to speak and entertain ourselves concerning things we do not understand: what a figure do those forward and rash people make in the world, who do so; and judge yourself, whether they acquire more esteem than blame, whether they are more than ed. Think, on the contrary, with how much honour a man regarded, who understands perfectly what he says, and what he does, and then you will confess that renown and applause have always been the recompence of true merit, and shame reward of ignorance and temerity. therefore you would be honoured, endeavour to be a man of true merit; and if you enter upon the government of the republic, with a mind sagacious than usual, I shall wonder if you succeed in all your designs.

Thus Socrates put a stop to the disorderly ambition of this man: but on an occasion quite contrary, he following manner exhorted to take an employment. He

was a man of sense, more deserving than most others in the same post; but as he was of a modest disposition, he constantly great difficulties of engaging self in public business. therefore addressed himself to him in this manner. you knew any man that could gain the prizes in the public games, and by that means render himself illustrious, and acquire glory to his country, what would you say of him if he refused to offer himself to the contest? I would say, answered Charmidas, that was a mean spirited effeminate fellow. And if were capable of governing a republic, of increasing its power by advice, and of raising himself by this means to a high degree of honour, would you brand him likewise with meanness of soul, if he would pre- himself to be employed? Perhaps I might, said Charmidas; but why do you ask me this question; Socrates replied; because you are capable of managing affairs of the republic, and nevertheless you avoid doing so, though in quality of a citizen you are obliged to take care of the commonwealth. Be no longer then thus negligent in this matter, consider your abilities and your duty with more attention, and let not slip the occasions of serving the republic, and of rendering it, if possible, flourishing than it is. This will be a blessing, whose influence will de- only on the other citizens, but on your friends and yourself.

On Smuggling, and its various species.—
Published in the London Chronicle, November 24, 1767.

SIR,—There are many people that would be thought, and think themselves, honest men, who fail nevertheless in particular points of honesty; deviating from that character sometimes by the prevalence of mode or custom, and sometimes through inattention; so that their honesty is partial only, and general universal. Thus one, who would scorn overreach you in a bargain, shall make a scruple of trucking you a little and then cards; another, that plays with the fairness, shall with great freedom cheat you in the sale of a horse. But there is a kind of dishonesty, into which otherwise good people easily and frequently fall, than that of defrauding government of its revenues by smuggling when they have an opportunity, or encouraging smugglers by buying their goods.

I fell into these reflections the other day, on hearing two gentlemen of reputation discoursing about a small estate, which one of them was inclined to sell, and the other to buy; when the seller, in recommending the place, remarked, that its situation was very

advantageous on this account, that, being on in a smuggling country, had frequent opportunities of buying of expensive articles used in a family (such as tea, coffee, chocolate, brandy, wines, laces, French silks, and all kinds of India goods, 20, 30, and in some articles 50 per cent. cheaper, than they be had in the more interior parts, of traders paid duty.—The other honest gentleman this an advantage, but insisted, the seller, in the advanced price demanded on account, rated the advantage much above its value. And neither of seemed think dealing with smugglers a practice, that honest man (provided he got goods cheap) had the reason to be ashamed of.

At a time when the of our public debt, and the heavy expense of maintaining our fleets and be ready for defence occasion, makes it necessary, only continue old taxes, but often to look for once, perhaps it may not be useless to state this in a light that few seem have considered it.

The people of Great Britain, under the happy constitution of this country, have a privilege few other countries enjoy, that of choosing the third branch of the legislature, which branch has alone the power of regulating their taxes. Now whenever the government finds it necessary for the common benefit, advantage, and safety of the nation, for the security of our liberties, property, religion, and every thing that is dear to us, that certain shall be yearly raised by taxes, duties, &c. and paid into the public treasury, thence to be dispensed by government for those purposes; ought not every honest man freely and willingly to pay his just proportion of this necessary expense? Can he possibly preserve a right to that character, if, by fraud, stratagem, or contrivance, he avoids that payment in whole or part.

What should think of a companion, who, having supped with his friends at a tavern, and partaken equally of the joys of evening with the rest of us, would nevertheless contrive by artifice his share of the reckoning upon others, in order to be scot-free? If a man who practised this, would, when detected, be deemed and called a scoundrel, what ought he be called, who enjoy the inestimable benefits of public society, and yet by smuggling, or dealing with smugglers, contrive to evade paying just share of the expense, as settled by his own representatives in parliament; wrongfully throw upon honest perhaps much poorer neighbours? He will perhaps be ready to tell me, that he does not wrong his neighbours; he scorns the imputation, he only cheats the king a little, who is

very able to bear it. This, however, is a mistake. The public treasure is the treasure of the nation, to be applied to national purposes. And when a duty is laid for a particular public and necessary purpose, if, through smuggling, the duty falls short of raising the sum required, and other duties must therefore be laid to make up the deficiency, all the additional sum laid by the new duties and paid by other people, though it should amount to no more than a half-penny or a farthing per head, is so much actually picked out of the pockets of those other people by the smugglers and their abettors and encouragers. Are they any better or other than pickpockets? what mean, low, rascally pickpockets those be, that pick pockets for halfpence and for farthings?

I would not however suppose to allow in what I have just said, that cheating the king is a less offence against honesty than cheating the public. The king and the public in these cases are different names for the same thing; but if we consider the king distinctly it will not lessen the crime: it is no justification of a robbery, that the person robbed is rich and able to bear it. The king has as much right to justice as the meanest of his subjects; and as he is truly the common father of his people, those that rob him fall under the Scripture wo, pronounced against the son that *robbed his father, and said it is no sin.*

Mean as this practice is, do we not daily see people of character and fortune engaged in it for trifling advantages to themselves?—any lady ashamed to request of a gentleman of her acquaintance, that when he returns from abroad he would smuggle her home a piece of silk or lace from France or Flanders? Is any gentleman ashamed to undertake and execute this commission?—Not in the least. They will do it freely, even before others whose pockets they are thus contriving to pick by this piece of knavery.

Among other branches of the revenue, that of the post-office is, by a law, appropriated to the discharge of our public debt, to defray the expenses of the House of Commons. None but members of parliament, and a few public officers have now a right to avoid, by a frank, the payment of postage. When any letter, written by them or on their business, is franked by any of them, it is a hurt to the revenue, an injury which they must now take the pains to conceal by writing the whole superscription themselves. And yet such is our insensibility to justice in this particular, that nothing is more common than to see, even in a reputable company, a very honest gentleman or lady declare his or her intention to cheat the nation of three pence by a frank, and without applying to one of the very legions themselves, with a modest request, that they would be pleased to become an ac-

complice in the crime, and assist in the perpetration.

There are then, who by these practices take a great deal in a year out of the public purse, and put the money into their own private pockets. If, passing through a room where public money is deposited, a man takes the opportunity of clandestinely pocketing and carrying off a guinea, is he not truly and properly a thief? And if another, paying into the treasury a guinea, ought to pay in, and applies it to his own use, when he knows it belongs to the public as much as that which has been paid in, what difference is there in the nature of the crime, or the baseness of committing it?

Some laws make the receiving of stolen goods equally penal with stealing, and upon this principle, that if there were no receivers, there would be few thieves. Our proverb too says truly, that *the receiver is as bad as the thief.* By the same reasoning, as there would be few smugglers, if there were no receivers who knowingly encouraged them by buying their goods, we may say, that the encouragers of smuggling are as bad as the smugglers; and that, as smugglers are a kind of thieves, both equally deserve the punishments of thievery.

In this view of wronging the revenue, what must we think of those who evade paying for their wheels and their plate, in defiance of law and justice, and yet declaim against corruption and speculation, as if their hands and hearts were pure and unsullied? The Americans did us grievously, when, contrary to our laws, they smuggle goods into their own country: and yet they hold no hand in making those laws. I do not however pretend from thence to justify them. I think the offence much greater in those who either directly or indirectly have been concerned in making the very laws they break. And when I hear them exclaiming against the Americans, and for every little infringement of the acts of trade, or obstruction given by a petty mob to an officer of our customs in that country, calling for vengeance against the whole people as enemies and traitors, I cannot help thinking there are still those in the world who can see a mote in their brother's eye, while they do not discern a beam in their own; and that the old saying is as true as ever it was, *may better steal a horse, than another over the hedge.*

B. F.

for improving the Condition of the Free Blacks.

Tax business relative to free blacks shall be transacted by a committee of twenty-four

* Alluding to the wheels on plate.

persons, annually elected by ballot, at the meeting of this society, in the month called April; and in order to perform the different services with expedition, regularity, and energy, this committee resolve itself into the following sub-committees, viz:

I. A committee of inspection shall superintend the morals, general conduct, and ordinary situation of the free negroes, and give advice and instruction, protection from wrongs, and other friendly offices.

II. A committee of guardians, who shall place out children and young people with suitable persons, that they may (during a moderate time of apprenticeship, or servitude) learn some trade or other business of subsistence. The committee may effect this partly by a persuasive influence on parents and the persons concerned; and partly by co-operating with the laws, which are, or may be enacted for this, and similar purposes: in forming contracts on these occasions, the committee shall be faithful to the society, as far as may be practicable, the right of guardianship over the persons so bound.

III. A committee of education, who shall superintend the school-instruction of the children and youth of the free blacks; they may either influence them to attend regularly the schools already established in this city, or form others with this view; they shall, in either case, provide, that the pupils may receive such learning as is necessary for their future situation in life; and especially a deep impression of the most important, and generally acknowledged moral and religious principles. They shall also procure and preserve a regular record of the marriages, births, and unanctions of all free blacks.

IV. A committee of employ, who shall endeavour to procure constant employment for those blacks who are able to work: and to prevent the evils of poverty, idleness, and many vicious habits. This committee will, by sedulous inquiry, be enabled to find common labour for a great number; they will also provide, that each, according to his talents, shall learn various trades, which may be done by prevailing upon them to bind themselves for such a term of years, as shall compensate their employers for the expense and trouble of instruction and maintenance. The committee may attempt the institution of some useful and simple manufactures, which require little skill, and also may assist, in commencing business, such as appear to be qualified for it.

Whenever the committee of inspection shall find of any particular description requiring attention, they shall immediately direct them to the committee, of whose care they are the proper objects.

In matters of a mixed nature, the committees shall confer, and, if necessary, act in con-

cert. Affairs of great importance shall be referred to the whole committee.

The expense incurred by the prosecution of the plan, shall be defrayed by a fund, to be formed by donations, or subscriptions, for particular purposes, and shall be kept separate from the other funds of this society.

The committee shall make a report of their proceedings, and of the state of their stock, to the society, at their quarterly meetings, on the months called April and October.

Philadelphia, 26th October, 1783.

Remarks concerning the Savages of America.*

SAVAGES call them, because their manners differ from ours, which we think the perfection of civility; they are the same of theirs.

Perhaps, if we could view the manners of different nations with impartiality, we should find no people so rude, as those without any rules of politeness; nor any so polite, as not to have some of rudeness.

The Indian men, when young, are hunters and warriors; when old, counsellors; for all their government is by the council or advice of the sages; there is no force, there are no prisons, no officers to compel obedience, or inflict punishment. Hence they generally study oratory, the best speaker having the most influence. The Indian women till the ground, dress the food, nurse and bring up the children, and preserve and hand down to posterity the memory of public transactions. These employments of men and women are accounted natural and honourable. Having few artificial wants, they have abundance of leisure for improvement by conversation. Our laborious mode of life, compared with theirs, they esteem slavish and base; and the learning on which we value ourselves, they regard as frivolous and useless. An instance of this occurred in the treaty of Lancaster, in Pennsylvania, anno 1744, between the government of Virginia and the Six Nations.

After the principal business was settled, the commissioners from Virginia questioned the Indians by speech, there was at Williamsburg a college, with a fund, for educating Indian youth; and that if the chiefs of the Six Nations would send down half a dozen of their sons to that college, the government would take care that they should be well provided for, and instructed in the learning of the white people. It is one of the Indian rules of politeness, that on a public proposition the same day it is made; they think it would be treating it as a light matter, and that they show respect

* This paper and the two next in order were printed in separate pamphlets in England, in the year 1784 and afterwards in 1787.

fable, fiction, and falsehood." The Indian, offended, replied, "My brother, it seems your friends have not done you justice in your education; they have not well instructed you in the rules of common civility. You saw that we, who understand and practice those rules, believed all your stories, why do you refuse to believe ours?"

any of them come into our towns, our people are apt to crowd round them, gaze upon them, and incommode them where they desire to be private; this they esteem great rudeness, and the effect of the of instruction in rules of civility and good manners. "We have," say they, "as much curiosity as you, when you come into our towns, we wish for opportunities of looking at you; but for this purpose we hide ourselves in bushes, where you are unseen, and never intrude ourselves into your company."

Their manner of entering another's villages is very different from our rules. It is reckoned uncivil in travelling strangers, to enter a village abruptly, without giving notice of their approach. Therefore, as soon as they arrive within hearing, they stop and hollow, remaining there till invited to enter. Two old men usually come out to them, and lead them in. There is in every village a vacant dwelling called the strangers' house. Here they are placed, while the old men go round from hut to hut, acquainting the inhabitants, that strangers are arrived, who are probably hungry and weary; and every one sends them what he can spare of victuals, and skins to repose on. When the strangers are refreshed, pipes and tobacco are brought; and then, but before, conversation begins, with inquiries who they are, whither bound, what news, &c. and it usually ends with offers of service, so that strangers have occasion for guides, or any necessities for continuing their journey; and nothing is exacted for the entertainment.

The same hospitality, esteemed among them as a principal virtue, is practised by private persons; of which Conrad Weiser, our interpreter, gives the following instance. He had been naturalised among the Six Nations, and spoke well the Mohock language. In going through that country, to carry a message from the governor to the council at Onondaga, he called at the habitation of Canasatego, an old acquaintance, who embraced him, spread furs for him to sit on, and placed him at ease. He then mixed some rum and water for his drink. When he was well refreshed, and had lit his pipe, Canasatego began to converse with him; asked how he had fared the many years since they had seen each other; whence he then came; what occasioned the journey, &c. He had answered all the questions; when the

discourse began to flag, the Indian to continue it said, "Conrad, you have lived long among the white people, and know something of their customs; I have been sometimes at Albany, and have observed, that once in many days they shut up their shops, and assemble all in the great house; tell me what it is for? what do they do there?" "They meet there," says Conrad, "to hear and learn good things." "I do not doubt," says the Indian, "that they tell you so; they have told me the same: but I doubt the truth of what they say, and I will tell you my reasons. I went lately to Albany to sell my skins and buy blankets, knives, powder, rum, &c. You know I generally to deal with Hans Hanson; but I was a little inclined this time to try some other merchants. However, I called first upon Hans, and asked him what he would give for beaver. He said he could not give any more than four shillings a pound: but, says he, I cannot talk on business now; this is the day when we meet together to learn good things, and I am going to meeting. So I thought to myself, since I do not do any business to-day, I may as well go to the meeting too, and I went with him. There stood up a man in black, and began to talk to the people very angrily. I did not understand what he said; but perceiving that he was much at me and Hans, I imagined he was angry at seeing me there; I went out, sat down near the house, struck fire, and lit my pipe, waiting till the meeting should break up. I thought too, that he had said something of beaver, and I expected it might be the subject of their meeting. When they came out I accosted my merchant. Well, Hans, says I, I hope you have agreed to give more than four shillings a pound? No, says he, I cannot give so much, I cannot give more than three shillings and sixpence. I then spoke to several other dealers, but they all sung the same song,—three shillings and sixpence,—three and sixpence. I made it clear to me that their suspicion was right; and that whatever they pretended of meeting to learn good things, the real purpose was to consult how to cheat Indians in the price of beaver. Consider, says a little, Conrad, you must be of my opinion. If they met so often to learn good things, they would surely have learned some before this time. But they are still ignorant. You know our practice.

"If a white man, in travelling through our country, enters one of our cabins, we all treat him as I do you; we dry him if he is wet, we warm him if he is cold, and give him meat and drink, that may allay his hunger and hunger; and we spread soft furs for him to rest and sleep on: we demand nothing in return. But if I go into a white man's house at Albany, and ask for victuals and drink, they say, Where is your money? If I have

none, they say, Get out, you Indian dog. You see they have not yet learned those little good things, that we need no meetings to be instructed in, because our mothers taught them to us, when we were children; and therefore it is impossible their meetings should be, as they say, for any such purpose, or have any such effect; they are only to contrive the cheating of Indians in the price of beaver."

*Memoire de Sir John Dalrymple ou Projet du Lord Rocheford, pour empêcher la Guerre.—Anecdote Historique.**

AVANT que la France se fut déclarée pour l'Amérique, lord Rocheford, autrefois Ambassadeur à Espagne, France, formoit un Projet pour empêcher la guerre. C'étoit que l'Angleterre proposeroit un grand traité de confédération à la France, l'Espagne, le Portugal, l'Angleterre, qui devoit avoir trois objets. Le premier, une garantie mutuelle entre quatre puissances de leurs possessions dans l'Amérique et dans les deux Indes, avec provision qu'une guerre dans l'Europe ne seroit jamais une guerre dans ces régions; quelque prétexte que ce soit, et fixant le nombre des troupes et des vaisseaux que les puissances contractantes devoient fournir contre la puissance contrevenant à la paix dans ces régions remotes. Le second objet étoit à donner une participation au commerce de l'Amérique à la France, l'Espagne, et le Portugal, autant qu'une telle participation ne seroit incompatible avec les intérêts communs et la rivalité de l'Amérique Anglaise et de l'Angleterre.

Le troisième objet étoit l'ajustement des Privilèges contestés des Américains sur des principes justes et honorables pour eux. Lord Rocheford étoit pour lors Secrétaire d'Etat. Il me disoit que la première personne à qui il communiquoit son projet étoit le feu Prince de Mazerano Ambassadeur d'Espagne, et que, quoique vieux et malade, il se leva, l'embrassa et dit, ah! Milord, quel Dieu vous a inspiré! Lord Rocheford le communiquoit aussi à un de ses amis qui étoit alors et est à présent un ministre du Roy de la Grande Bretagne, qui l'approuvoit beaucoup: mais bientôt après, Lord Rocheford quitta le ministère, et retiroit à la Campagna, et par cet accident son projet n'étoit plus présenté au Roi.

J'ai donné relation de cette anecdote, je pense, à quatre ou cinq personnes qui seules en connoissent la vérité; et parce que je pense qu'il n'est pas encore trop tard pour faire revivre un projet qui sauvera

un million de Chrétiens d'être faits Orphelins. Quel premier objet telle confédération, Lord Rocheford pensoit que la proposition seroit acceptée par toutes les puissances, parceque c'étoit l'intérêt de toutes de l'accepter.

Les pertes de la France dans les deux Indes dans la dernière guerre, et leurs pertes dans les Indes Orientales dans la dernière guerre, et ses pertes dans les Indes Orientales pendant la guerre d'à présent, où ils ont perdu en six semaines tout ce qu'ils y avoient, les pertes des Espagnols dans la guerre dernière dans les deux Indes, et même le coup donné l'autre jour dans la baie de Honduras par un jeune Capitaine

poignée de soldats, la facilité avec laquelle le Portugal perdit l'île de Ste. Catherine dans le Brésil; le malheur des Angloises dans l'Amérique depuis trois ans, tout prouve, que la France, l'Espagne, le Portugal et l'Angleterre ont leurs parties tendres dans l'Amérique dans les deux Indes, et par conséquent qu'ils ont tous un intérêt dans une mutuelle garantie de leurs possessions dans les trois parties du Monde. Quant au second objet de la Confédération: je suis sensible que l'idée de donner une participation du commerce de l'Amérique aux autres trois nations la limitation que cela ne soit pas incompatible avec les intérêts communs de l'Amérique Anglaise et de l'Angleterre, est une idée un peu vague, et sujette aux disputes, mais heureusement pour l'humanité il y a cinq personnes dans ses cinq parties d'un caractère singulier, qui les rend propres à faire là-dessus des réglemens précis, et sujets à nulles disputes, qui enrichiront la France, l'Espagne et le Portugal sans appauvrir l'Angleterre et ses Colonies. Pour l'Amérique, il y a le Docteur Franklin, peut être le premier génie de l'âge présent et qui connoît bien les liaisons entre l'Amérique et l'Angleterre. Pour la France, il y a le Contrôleur-Général,* qui s'est élevé dès sa jeunesse dans la pratique du commerce. Pour l'Espagne, il y a Monsieur Campomanes, qui s'est employé à la maturité de son âge en des études qui lui donnent une supériorité en de telles discussions. Pour le Portugal, il aura l'aide et le conseil du Duc de Braganza qui a cueilli les connaissances dans presque toutes les Cours des Bibliothèques, les places, les places, les places des marchands d'Europe: pour l'Angleterre, elle a un homme qui connoissant les vrais intérêts du commerce ne refusera pas à l'Amérique ce qu'il vient de donner à l'Irlande. Quant au troisième objet la confédération, l'Angleterre qui se vante tant de sa propre MAGNA CHARTA accordera avec facilité une MAGNA CHARTA à l'Amérique. Peut être, le meilleur moyen d'abrévier cet article est de donner

Dr. Franklin. gé.

* Not to diminish from originality of this document, neither the phraseology, or orthography, have been corrected.

néreuse est le moyen le plus sûr de s'assurer d'un homme généreux. L'Espagne a deux intérêts très solides : le succès d'une telle confédération, et l'indépendance de l'Amérique Anglaise. Le premier que, si l'Amérique Anglaise devenoit indépendante, l'Amérique Espagnole et ses îles seroient abîmées par la concurrence des Américains indépendants d'Angleterre. L'Angleterre ne par les traités avec l'Espagne ne faire la contrebande. Elle est liée par la peur que cette contrebande ne tirera une guerre sur elle dans l'Europe, ce qui dans le Chevalier Robert Walpole. La cherté des commodités de l'Angleterre de l'Europe met des entraves naturelles à la quantité de contrebande.

si les Américains étoient indépendants, ils diroient qu'ils n'étoient par traités Anglois. ne seroient par peur, parce qu'ils loins l'Espagne; s'étant contre quatre-vingt-dix mille soldats et marins Anglois, ils se moqueroient des forces de l'Espagne; et Le prix des commodités Américaines couvrirait les Colonies Espagnoles de contrebande. Il y a même une nécessité pour forcer les Américains, ou de faire la contrebande ou de faire la guerre sur l'Amérique Espagnole et Portugaise et leurs îles; n'ont ni or, ni argent chez eux, ne peuvent cultiver des terres, ni faire leur sans ces métaux précieux. Ils n'auroient que quatre sources dont ils pourroient les tirer. Le premier est le commerce de l'Europe; le second, pensions de France et d'Espagne; le troisième, la contrebande des Provinces d'Espagne et de Portugal le nouveau Monde; le quatrième, la guerre dans ces provinces. Autant que les Américains continuent dans un état les Anglois appellent la Rébellion, leur avec l'Europe sera interrompu par les Corsaires Anglois; ainsi ils ne tireront que peu de métaux précieux de la première.

Les pensions de la France de l'Espagne ne seroient qu'une bagatelle pour soutenir l'agriculture et les manufactures d'un si vaste pays. Ils n'auroient donc pour les métaux précieux, que dans la contrebande ou les guerres avec les provinces Espagnoles et Portugaises. Pour empêcher cette contrebande, les traités de confédération pourroient des provisions la contrebande et des Anglois et des Américains. C'est un point délicat pour un Anglois à suggérer les moyens; mais si les deux nations vouloient sincèrement la paix, je pourrais dans un quart d'heure suggérer des moyens infaillibles. Il y a un autre intérêt que l'Espagne a contre l'indépendance des Américains et par conséquent pour le traité de confédération est peut-être encore plus grand. Les Américains ne pourroient voler avec leurs voiles partout, si-

roient des établissements dans la Nouvelle Zélande, les Îles d'Otaïti, ou quelques autres îles dans la Mer du Sud; même les Anglois, les François, les Portugais, et les Hollandais les mers des Indes Orientales, étant indépendants, nul traité ne les empêcherait de faire de tels établissements: ils pourroient les faire selon les droits des gens. Le Capitaine Cook dit dans son dernier voyage imprimé, qu'il y a 47,000 gens de mer les seules îles d'Otaïti, et le Capitaine Wallis qui découvrit de ces îles, m'a dit à Lisbonne, il y a quelques jours, que habitants d'Otaïti montoient au haut des mâts Anglois et couvroient par les morceaux de bois croissant les ancreaux attachées, aussi bien, trois jours, les marins Anglois; me donnoit deux pour cela. La première étoit que, vivant de poisson, tous les habitants sont gens de mer, et le second, que les peuples qui ne portent que des souliers toujours plus propres pour les parties supérieures des vaisseaux. Le Capitaine Cook aussi, voyage imprimé, donne une description de Nouvelle Zélande d'une poste pour une et une ville qui pouvoit en quelques semaines être faite impenable: et n'a qu'à regarder la forme des îles de la Mer du Sud les estampes qui ont été faites, pour se satisfaire que ces îles sont pleines de postes impenables. Je me montre aussi bon ami à l'Espagne, à la France, au Portugal, et à la Hollande qu'à l'Angleterre, quand je développe l'idée suivante, qui peut-être échappe aux autres. Autrefois on ne pouvoit aller sûreté Mers du Sud, que dans le mois de Décembre et de Janvier, et par les terribles latitudes autour du Cap Horn: mais les découvertes du Capitaine Cook des Anglois ont nouvellement démontré qu'on peut aller par le Cap-de-Bonne-Espérance, dans tous les mois, par les belles latitudes du Cap-de-Bonne-Espérance et de la Nouvelle Zélande, et dans presque le même espace de temps, l'un étant un voyage de quatre mois et l'autre de cinq, que même vent d'ouest qui souffle presque l'année dans les autres latitudes et qui retarde les vaisseaux passant par le Cap Horn, les porte avec rapidité par le Cap-de-Bonne-Espérance et la Nouvelle Zélande; suit, que les Américains querelleront les Espagnols peut être le chapitre de la bande, ils enverront leurs vaisseaux sur les côtes de Chili de leurs établissements du Sud par les latitudes de Nouvelle Zélande, par les vents d'ouest qui toujours dans ces latitudes, qui n'est qu'un voyage de cinq semaines. Car le Capitaine Cook un voyage, le Capitaine Fourneau dans un autre, à l'est de la Nouvelle Zélande au Cap Horn en moins de temps, et jour des vents au Capitaine

Cook, montre que les vents d'ouest dans les latitudes sont le vent d'est dans la proportion de dix à un. Quand leurs vaisseaux seront les côtes du Chili, ils prendront avantage du vent de terre qui souffle éternellement du Sud, au Nord pour les porter à les côtes du Chili et du Pérou. Le vent les portera dans quatorze jours jusqu'à la Baye de Panama, et dans le cours de ce voyage ils ravageront les côtes et auront prises de Vaisseaux partout. La force navale de l'Espagne ne pourra pas empêcher, parce que les Américains en avant, rendra les d'Espagne incapables d'aller à leur secours. De la Baye de Panama retourneront par le grand vent des Tropiques de l'est à l'ouest, qui ne change jamais, leurs dans les du Sud, ou à vendre leurs prises dans les Mers de la Chine ou de l'Inde; d'où ils retourneront peut-être avec de nouveaux vaisseaux et de équipages des hommes, faire la répétition de leurs ravages. Leurs seront encore par la Nouvelle Zélande, des Indes la latitude de 40 Nord, de la Chine, et dans ce dernier ils tomberont le Mexique et prenant avantage vents de terre qui toujours du Nord jusqu'à la Baye de Panama, ils ravageront le Mexique auparavant ils avoient ravagé le Chili Pérou.

De la Baye de Panama, retourneront par le grand du Tropique, ou chez eux les du Sud, Mers de l'Asie renouveler leurs insultes. tante et sans remède. De l'autre côté, quand ils en guerre l'Angleterre. France, le Portugal, ou la Hollande, ils tourneront en arrière leurs établissements dans les Mers du Sud les Indes Orientales de l'Angleterre, France, le Portugal la Hollande. Ils auront deux grandes routes à aller et à retourner; l'une à l'ouest de la Nouvelle l'autre par les Isles entre la Chine et la Nouvelle Hollande: et dans cette dernière route, auront de routes qu'il y a d'Isles, d'où il suit qu'il sera presque impossible attrapper leurs vaisseaux, ou en allant, ou revenant. Toutes ces conséquences pourroient être empêchées dans le traité confédération que Lord proposoit; ce traité ou pourroit stipuler que ces Isles seroient toujours leurs anciens habitants; car assurément la nation qui la première en prendra possession commandera le des Mers du Sud et d'Asie. L'Europe voyant faire les Américains indépendants, est dans la situation d'un homme qui dort sur la glace et n'est pas que la glace se dégage, et pour cette raison, pour donner plus de poids à son opinion, on pourroit inviter la Hollande et le qui ont des intérêts dans tous les deux nouveaux mondes, d'être parties con-

tractantes ces du traité, qui regardent la garantie mutuelle. La raison pour quoi les traités sont rompus si souvent qu'ils ne sont provision pour les intérêts réciproques pour l'avenir nations contractantes. Les seuls que je connoisse qui font attention à cet objet les traités entre le Portugal et l'Angleterre, lesquels le Portugal gagne préférence pour ses vins Angleterre l'Angleterre une préférence pour la vente de ses draps en Portugal: conséquence qu'il n'y a jamais eu, et, apparence, il n'y jamais une guerre entre le Portugal l'Angleterre. ne seroit difficile, la même considération générale, ou par les traités séparés de commerce l'Angleterre d'un côté, et les trois royaumes, l'Espagne, le Portugal et la France respectivement des autres côtés, de servir infiniment les intérêts de merce de les trois dans leurs avec l'Angleterre. Comme l'Espagne a les vins, l'huile, les fruits, le sel, les laines quelques autres articles que l'Angleterre n'a pas, et l'Angleterre a le fer le Charbon dans les mêmes champs pour ses manufactures de fer, qu'elle par l'humidité de son climat la laine longue pour les draps d'un prix bas, qu'elle l'étain, le poisson, et quelques articles que l'Espagne n'a la conséquence que, quand l'Angleterre riche, elle achètera plus des articles de l'Espagne, et quand l'Espagne riche, elle achètera plus articles d'Angleterre, et par conséquent que c'est impossible pour l'un à s'enrichir enrichir l'autre. Le même raisonnement s'applique aux liaisons naturelles entre l'Angleterre et le Portugal. Il y a même liaison naturelle entre l'Angleterre la France beaucoup d'articles de commerce, si la jalousie des foux et des gens mal instruits ne l'interrompoit perpétuellement. Je l'entendu d'une main vûre, si l'Abbé Terray avoit continué dans le ministère de la France, il auroit eu un tarif entre France et l'Angleterre. pour l'entrée, des conditions plus favorables, des vins et des articles des modes d'une nation, les factures de fer des bleds de l'autre; et l'Angleterre pourroit avoir procuré tement du Portugal pour la diminution de commerce de vins avec l'Angleterre, d'autres dédommagemens. L'Angleterre, faveur de France, l'Espagne et le Portugal pouvoit même permettre l'exportation de ses laines payant un droit l'exportation, sans

L'exportation de superfluité de laine seroit du bien aux propriétaires des terres en Angleterre, au Roy en lui donnant une nouvelle taxe ses nations étrangères en leur donnant un article nécessaire pour leurs manufactures.

Malheur pour l'humanité! L'Abbé Ter-

ray n'est pas : mais bonheur pour l'humanité, Franklin, Contrôleur-Général de France, Mr. Campomanes, le Duc de Braganza, et le Lord sont tous encore en

C'est le Roy d'Espagne et le Comte de Florida Blanca qui peuvent tous les cinq en Pour moi je n'ai nulle autorité des Anglois présenter ce projet, tous vivant en avec plupart d'eux et avec les amis des autres, je suis sûr qu'il y a des sentiments ce mémoire qui les leurs. J'avoue que je reçu une lettre en Portugal, quatorze jours avant que je partisse pour l'Espagne, de Milord Rocheford, qui n'est pas cette heure dans le ministère, qui entêté d'un projet qui lui fait tant d'honneur, me conseillait de pour sur la pose le faire réussir.

Et que j'ai lettre le même sujet, du Duc de Braganza qui entroit les vues de projet de Milord Rocheford, non par politique, mais en ami de l'humanité.

Encouragé par de tels hommes et encore plus par mon propre cœur, j'écris un des ministres du Roy d'Angleterre que si je ne trouvois pas les esprits trop échauffés et si je ne trouvois pas que je ne donnois pas offense, j'avois intention de faire justice au projet de Milord Rocheford et en Espagne France, et je le pris de m'envoyer une réponse à Paris, si le ministère d'Angleterre approuvoit ou désapprouvoit ce que j'allois faire. Je n'ai qu'à ajouter que vues étant à unir et non à séparer les nations, je n'ai nulle objection que les ministres de la France et le Docteur Franklin aient chacun un exemplaire de ce mémoire.

A true Copy from the Original.

WM. CARMICHAEL,
Secretary of the American Legation
Madrid.

(In *Human Vanity*.—From the *Pennsylvania Gazette*. Dec. 4, 1786.

MR. FRANKLIN.—Meeting with the following curious little piece, the other day, I send it to you to republish, as it is now in very

There is something so elegant in the imagination, conveyed so delicate a style, and accompanied with a moral so just elevated, yield great pleasure instruction to every of real taste and virtue.

Cicero, in the first of his Tusculan questions, wisely exposes the vain judgment we are apt to form, of the duration of human life compared to eternity. In illustrating this argument, quotes a passage of history from Aristotle, concerning a species of insects on the banks of the river Hypanis, that never outlive the day in which they are born.

To pursue thought of elegant writer, let us of the robust of these Hypanians, in history, was in a manner coeval with time itself; he began to exist at the break of day, and from the uncommon strength of his constitution, he has been able show himself active in life, through the numberless minutes of or twelve hours. Through so long a series of seconds, he have acquired wisdom in his way, from observation and experience.

He looks his fellow-creatures, who died about noon, to be happily delivered the many inconveniences of old age; can perhaps recount to his great grandson, a surprising tradition of actions, before any records of their nation. The young of Hypanians, who may invadence hour in life; approach his person with respect, and listen his improving discourses. Every thing he says will seem wonderful to their short-lived generation. The compass of a day will be esteemed the whole duration of time; and the first dawn of light will, in their chronology, be styled the great era of their creation.

Let us suppose this venerable insect, this Nestor of Hypania should, a little before his death, and about sun-set, for all descendants, his friends, and his acquaintances out of the desire he have to impart his last thoughts to them, and to admonish them, with departing breath. They meet, perhaps, under the spacious shelter of a mushroom; and the dying sage addresses himself them after the following manner.

"Friends and fellow-citizens! I perceive the longest life must however end: the period of mine is now at hand: neither I repine at my fate, since my great age is become a burden to me; and there is nothing new to me under the sun: the changes and revolutions I have in my country; the manifold private misfortunes to which we are all liable; the fatal diseases incident to our race, have abundantly taught this lesson: that no happiness can be or lasting which is placed in things that are out of our power—Great is the uncertainty of life!—A whole brood of our infants have perished in a moment, by a keen blast!—Shoals of our straggling youth, have been swept into the ocean by an unexpected breeze!—What desolation have we not suffered from the deluge of a sudden shower!—Our strongest holds are not proof against a storm of hail, and even a dark cloud damps the very sunniest heart.

"I have lived the first ages, and conversed with insects of a larger size and stronger make, and I must add, of greater virtue than any can boast of in the present generation. I must conjure you to give yet further credit to my latest words when I assure you, that yonder sun, which appears westward, be-

yond water, and not to be far distant from earth, in my remembrance stood in middle of the sky, and shot his beams directly down upon me. The world was much enlightened in those ages, and the air much purer. Think it not dotage in me, if I affirm, that glorious being moved from his first setting out in the east, and I began my life, the time when he began his journey, for several ages advanced along sky with vast heat and unparalleled brightness, but now by his declination and decay, more especially of late, in his vigour, I foresee, that all nature must fall in a little time, and that creation will lie buried in darkness, in less than a century of minutes.

"Alas! my friends, how did I flatter myself with the hopes of living here for ever; how magnificent are the cells which I hollowed out for myself: what confidence did I repose in the firmness and spring of my joints, and in the strength of my pinions! I have lived enough nature, and even glory. Neither will any of you, whom I leave behind, have equal satisfaction in life, in the dark declining age which I am already began."

Thus far this agreeable unknown writer, too agreeable we may hope, remain always concealed; the fine allusion to the character of Julius Cæsar, whose words he has put into the mouth of this illustrious son of Hypæris, perfectly just and beautiful, aptly points out the moral of this inimitable piece, the design of which would have been quite perverted, had a virtuous character, a Cato or Cicero, been made choice of, to have been turned into ridicule. This life of a day been represented employed in the exercise of virtue, would have had equal dignity with a life of any limited duration; and according to the exalted sentiments of Tully, would have been preferable to an immortality with all the pleasures of it, if void of those of a higher kind: but the views of this vain-glorious insect were fixed within the narrow circle of his own existence, he only the magnificent cells he built, and the length of happiness he enjoyed, he is the proper emblem of all such insects of the human race, whose ambition extend beyond the like limits; notwithstanding splendour they in present, they will no deserve the regard of posterity than butterflies of spring. In vain history been taken up describing the swarms of this mischievous species which infested the earth in the successive ages: now it is worth the inquiry of virtuous, whether the Rhine or the Adige may not perhaps swarm with them at present, as much as the banks of Hypæris; or whether

silver rivulet the Thames, may show a specious mole-hill, covered with inhabitants of like dignity and importance. The busy race of being attached to these fleeting enjoyments are indeed all of them engaged in the pursuit of happiness: and it is owing to imperfect notions of it, that they stop so short in their pursuit. The present prospect of pleasure to bound their views, and the more distant of happiness, when what they now propose shall be attained, do not strike their imagination. It is great stupidity, or thoughtlessness, to perceive, that the happiness of rational natures is inseparably connected with immortality. Creatures only endowed with sensation, may in a low sense, be reputed happy, so long as their pleasures are pleasing; if these pleasing sensations commensurate with the tune of their existence, this of happiness is complete. But such beings as are endowed with thought and reflection, cannot be made happy by any limited of happiness, how great soever its duration may be. The exquisite and more valuable their enjoyments are, the more painful be the thought that they are to have an end; and this pain of expectation must be continually increasing the nearer the end approaches. And if these beings are themselves immortal, yet insecure of the continuance of their happiness, the case is far worse, since an eternal void of delight, if not a state of misery, succeed. It would be of no moment, whether the time of their happiness were measured by days or hours, by months or years, by periods of the most immeasurable length: these swiftly flowing bear no proportion to that of infinity, where they must finish their The longest duration of finite happiness avails nothing, when it is past: the memory of it have any other effect than to renew a perpetual pining after pleasures to return, and since virtue is the only pledge and security of a happy immortality, the folly of sacrificing any temporal advantages, how important they may appear, infinitely great, and but leave behind an eternal regret.

Note.—The reader familiar with the writings of Dr. Franklin above all the writers of his age, cannot perceive in this beautiful production, the conceptions, which were simplified and digested of the Ephraim, which is to another of the editions; addressed to the Editor.

True Happiness.—From the Pennsylvania Gazette, Nov. 24, 1735.

THE desire of happiness is in general so natural, that all the world are in pursuit of it; all have this solely in view, though they take such different methods to attain it, and are so much divided their consists of

As evil can never be preferred, and though evil is often the result of our own choice, yet we never desire it, but under the appearance of an imaginary good.

Many things we indulge ourselves in, may be considered by us as evils; and yet be desirable: then, they are only considered as evils in their effects and consequences, not as evils present, attended with immediate misery.

Reason represents things to us, not only as they are present, but as they are in their whole nature and tendency: passion only regards them in the former light; when this governs us, we are regardless of the future, and are only affected by the present.

It is impossible for us ever to enjoy ourselves rightly, if our conduct be not such as to preserve the harmony and order of our faculties, and the original frame and constitution of our minds: all happiness, as all that is truly beautiful, can only result from order.

Whilst there is a conflict betwixt the two principles of passion and reason, we are miserable, in proportion to the ardour of the struggle, and when the victory is gained, and reason is so far subdued, as seldom to trouble us with its remonstrances, the happiness we have then attained, is not the happiness of our rational nature, but the happiness only of the inferior and sensual part of us; and consequently a very low and imperfect happiness, compared with that which the other would have afforded us.

If we reflect upon any one passion and disposition of mind abstracted from virtue, we shall soon see the disconnection between that and true solid happiness; it is of the very essence, for instance, of envy to be uneasy and disquieted: pride meets with provocations and disturbances upon almost every occasion: covetousness is ever attended with solicitude and anxiety: we have its disappointments to sour us, but never the good fortune to satisfy us; its appetite grows the keener by indulgence, and we can gratify it with at present, serves but the more to inflame its insatiable desires.

The passions, by being too much conversant with earthly objects, can never fix in us a steady composure, or acquiescence of mind. Nothing but an indifference to the things of this world, an entire submission to the will of Providence here, and a well-grounded expectation of happiness hereafter, can give us a true satisfactory enjoyment of ourselves. Virtue is the best guard against the many unavoidable evils incident to us; nothing better alleviates the weight of the afflictions, or gives a truer relish of the blessings of human life.

What is without us has not the least connexion with happiness, only so far as the preservation of our lives and health depends up-

on it: health of body, though so far necessary that we cannot be perfectly happy without it, is not sufficient to make us happy of itself.—Happiness springs immediately from the mind: health is but to be considered as a condition or circumstance, without which happiness cannot be tasted pure and entire.

Virtue is the preservative of health, as it prescribes temperance, and such a regulation of our passions as is most conducive to the well being of the body and economy. That it is at the same time the only true happiness of the mind, and the best means of preserving the health of the body.

If our desires are things of this world, they are never to be satisfied. If our great view is upon those of the next, the expectation of them is an infinitely higher satisfaction than the enjoyment of those of the present.

There is no true happiness then but in a virtuous self-approving conduct; unless our actions will bear the test of our sober judgments and reflections upon them, they are not the actions, and consequently not the happiness of a rational being.

Self-Denial.—From the Pennsylvania Gazette, Feb. 18, 1784.

It is commonly asserted, that without self-denial there is no virtue, and that the greater the self-denial is, the greater is the virtue.

If it were said, that he who cannot deny himself any thing he inclines to, though he knows it will be to his hurt, has not the virtue of resolution or fortitude, it would be intelligible enough; but if it stands, the proposition seems obscure or erroneous.

Let us consider some of the virtues singly.

If a man has no inclination to wrong people in his dealings; if he feels no temptation to it, and therefore never does it, can it be said, that he is not a just man? if he is a just man, has he not the virtue of justice?

If to a certain idle diversions have nothing in them that is tempting, and therefore he never relaxes his application to business for their sake, is he not an industrious man; or has he not the virtue of industry?

It might in like manner instance in all the virtues; but to make the thing short, as it is certain, that the more we strive against the temptation to any vice, and practise the contrary virtue, the weaker will that temptation be, and the stronger will be that habit; till at length the temptation hath no force, or entirely vanishes: if it does not, from thence, we endeavour to overcome vice, we continually less and less virtuous, till at length we have no virtue at all!

If self-denial be the essence of virtue, then it follows, that the man who is naturally tem-

perate, just, &c., is not virtuous, but that in order to be virtuous, he must, in spite of his natural inclinations, [] neighbours, and [] drink, &c., [] excess.

But, perhaps it may [] said, that by [] word virtue, [] the above assertion, is meant merit, and so it [] stand; [] without self-denial there is no merit; and the greater the self-denial [] greater [] merit.

The self-denial here [] be, when our inclinations [] towards vice, [] else it would still be []

By merit [] understood desert; and when [] say a [] merits, we [] that he deserves [] praise [] reward.

We [] pretend [] merit any thing of God, [] [] above our services, and the benefits he confers on us are the effects of his goodness and bounty.

All our merit then is with regard to one another, [] [] another.

Taking then the proposition [] it stands—

If a man [] sue a service, from a natural benevolent inclination, does he deserve less of me than another, who does me the like kindness against his inclination?

If I have two journeymen, [] naturally industrious, the other idle, but both perform a day's work equally good, ought I to give the latter the [] wages?

Indeed lazy workmen are commonly observed [] be [] extravagant in their demands [] the industrious; for if they were not more for their work, they cannot live so well as the industrious. But though it be true [] a proverb, that *lazy folks take the pains*, does it follow that they deserve the most money? If you were to employ [] in affairs of trust, would you pay more wages to [] you knew [] naturally honest, than for one naturally roguish, but who had lately acted honestly: for currents whose natural channels [] dammed up, [] a [] is by time [] sufficiently deep, and become natural, [] apt to break their banks. If [] servant is [] valuable than another, has [] [] merit than the other, [] yet this [] on account of superior self-denial.

Is a patriot not praiseworthy, if public spirit is natural to him?

Is a pacing horse less valuable for being a [] pacer?

Nor in my opinion has any man less merit [] having in general naturally virtuous inclinations.

The truth is, [] temperance, justice, charity, &c., are virtues whether practised [] against our inclinations; and the man who practises them, merits our love and [] : [] [] neither good [] bad, but [] it [] applied. [] denies a vicious inclination, is virtuous [] proportion to his reso-

lution; but the most perfect virtue [] above all temptation; such as the virtue of the saints in heaven: and he who [] any foolish, indecent, [] wicked thing, merely because [] is contrary [] his inclination, [] some mad [] thusists I have read of, who ran [] in public naked, under the notion of taking up the cross, is not practising [] science of virtue, but is lunatic.

Newcastle, Feb. 5.

Rivalship in Almanac making.—From Poor Richard's Almanac, 1742.

COURTEOUS READER,—This is the ninth year of my endeavours to serve thee in the capacity of a calendar-writer. The encouragement I have met with must be ascribed, in a great measure, to your charity, excited by the open, honest declaration I made of my poverty at my first appearance. This my brother *Philonathus* could, without being conjurers discover; and *Poor Richard's* success, has produced yet a *Poor Will*, [] a *Poor Robin*; and no doubt, *Poor John*, &c., will follow, and we shall all be, in name, what some [] say we are already in fact, a parcel of *poor almanac makers*. During the course of these nine years, what buffeting have I [] sustained! The fraternity have been [] arms. Honest *Titus*, deceased, was raised, and made to abuse his old friend. Both authors [] printers were angry. Hard names, and many, were bestowed on me. They denied me [] be the author of my [] works; declared there never [] any such person; asserted that I was dead sixty years ago; prognosticated my death [] happen within a twelvemonth: with many other malicious inconsistencies, the effects of blind passion, envy at my success; and a vain hope of depriving me, dear reader, of thy wonted countenance [] favour. —Who knows him? they cry: Where does he live?—But what is that to them? If I delight in a private life, have they any right to drag [] out of my retirement? I have good [] for concealing the place of my abode. [] is time for an old man, [] I am, to think of preparing for his great [] The perpetual teasing of [] neighbours and strangers, [] calculate nativities, give judgments [] schemes, and [] figures, discover thieves, detect horse-stealers, describe [] of runaways and strayed cattle; the crowd of visitors with a [] [] questions; Will my ship return safe? Will my mare win the race? Will her next colt be a pacer? When will my wife die? Who shall be my husband? and HOW LONG first? [] is the best time to cut hair, trim cocks, sow []? There [] the like impertinences I have now neither taste nor leisure for. I have had enough of them. All [] []

angry folks can say, ■■■ ■■■■ provoke me to tell ■■■■ where I live—I would ■■■ my nails first.

My first adversary is J. J.—a, philomat. who declares and protests (in his preface, 1741) that the *false prophecy put in my omniscience, concerning him, the year before, is altogether false and untrue: and that I am one of Beal's false prophets*. This *false, false prophecy* he speaks of, related to his reconciliation with the church of Rome; which, notwithstanding his declaring and protesting, is, I fear, ■■■ true. Two things in his elegiac ■■■■ confirm me in this suspicion. He calls the first of November *All-Hallows day*. Reader, does not this ■■■■ of popery? Does it in the least ■■■■ of the pure language of Friends? But the plainest thing is, his adoration of saints, which he confesses to be ■■■ practice, in these words, page 4.

Will any trouble ■■■■ me befall,
To my dear Mary then I would call

Did he think the whole world were so stupid as not to take notice of this? ■■■ ignorant as not to know, that ■■■ catholics pay the highest regard to the *Virgin Mary*? Ah! ■■■ John, we must allow you to be a poet, but you ■■■ certainly no protestant. I ■■■■ heartily wish your religion were as good as your verses. RICHARD SAUNDERS.

The Waste of Life.

ANACRIS was a gentleman of a good estate, he ■■■ bred to no business, and could not contrive how ■■■■ his hours agreeably; he had no relish for any of the proper works of life, nor any taste at all for the improvements of the mind; he spent generally ■■■ hours of the four-and-twenty in ■■■ bed; he dozed away two or three more on his couch, and as many were dissolved in good liquor every evening, if ■■■ met with company of his own humour. Five or six of the ■■■■ he ■■■■ ed away with rouch indolence: the chief business of them was to contrive his meals, and to feed his fancy before-hand with the promises of a dinner and supper; not that he was so very a glutton, or ■■■ entirely devoted to appetite; but chiefly because he knew not how to employ his thoughts better, he let them rove about the sustenance of his body. Thus he had made a shift to wear off ■■■ years since the paternal estate fell into his hands: and yet according to the abuse of words in our day, he was called a man of virtue, because he was scarce ever known to be quite drunk, ■■■■ his ■■■■ much inclined to lewdness.

One evening ■■■ he was tawling along, his thoughts happened to take a ■■■■ unusual turn, for they cast a glance backward, and began to reflect on his manner of life. ■■■■ he thought himself what a number of living be-

ings had been made a sacrifice ■■■ support ■■■■ carcass, and how much corn ■■■■ ■■■■ been mingled with ■■■■ offerings. ■■■■ not quite lost all ■■■■ arithmetic ■■■■ he learned when he was a boy, and he set himself to compute what he ■■■■ devoured since he ■■■■ the age of man.

■ About a dozen feathered creatures, small and great, have ■■■■ week with another (said he) given up their lives to prolong mine, ■■■■ in ten years amounts to at least six thousand.

■ Fifty sheep have been sacrificed in ■■■ year, with half a hecatomb of black cattle, that I might have the choicest part offered weekly upon my table. Thus ■■■ thousand beasts out of the flock and the herd have been slain in ten years time to ■■■■ ■■■■ besides what the forest has supplied me with. Many hundreds of fishes have in all their varieties, been robbed of life for my repast, and of ■■■■ smaller fry ■■■■ many thousands.

■ A ■■■■ of corn would hardly afford fine flour enough ■■■■ month's provision, and this arises to above six score bushels; and many hogsheads of ale and wine, and other liquors, have passed through this body of mine, this wretched strainer of ■■■■ ■■■■ drink.

■ And what have I done all this time for God or man? What a vast profusion of good things upon ■■■■ useless life. ■■■■ a worthless liver! There ■■■■ the meanest creature among all these which I have devoured, but hath answered the end of its creation better than I. It was made to support human nature, and it hath done so: Every crab and oyster I have eat, and every grain of corn I have devoured, hath filled up its place in the rank of beings with more propriety and honour than I have done: O shameful ■■■■ of ■■■■ and time!"

In short, he carried on his moral reflections with so just and ■■■■ a force of reason, as constrained him to change his whole course of life, to break off his follies at once, and to apply himself to gain ■■■■ useful knowledge, when he was more than thirty years of age; he lived many following years, with the character of a worthy man, and an excellent Christian; he performed the kind office of ■■■■ of good neighbour ■■■■ home, and made ■■■■ shining figure ■■■■ patriot in the senate-house, he died with a peaceful conscience, and the ■■■■ of his country were dropped upon his tomb.

The world, that knows the whole series of ■■■■ life, stood amazed ■■■■ the mighty change. They beheld him as a wonder of reformation, while he himself confessed and adored the divine power and mercy, which had transformed him from a brute ■■■■ ■■■■

But this was a single instance; and we ■■■■ almost venture ■■■■ write MIRACLE ■■■■ it. Are there ■■■■ numbers of both ■■■■ among

our young gentry, ■ this degenerate age, whose ■ thus run ■ utter waste, without the ■ tendency to usefulness.

When I meet with persons of such a worthless character as this, it brings to my mind some scraps of Horace,

*Non numerus sumus, et fruges consumere nati
Alenque Juvarent
Cum pulchrum fuit in Mediolis dormire domo, &c.*

PARAPHRASE.

There are a number of us creep
Into this world, to eat and sleep,
■ know ■ reason why they're born
But merely ■ the corn,
■ cattle, ■, and fish,
And leave ■ an empty dish
Tho' ■ do the same
Unlucky birds of hateful name,
Ravens or crows might fill their places,
And swallow corn and carcasses.
Then, if their tomb-stone when they die,
Don't taught to flatter suit to lie,
There's nothing better will be said
Than that they've eat up all their bread,
■ up all their drink and gone to bed!

There ■ other fragments of that heathen poet, which ■ on such occasions; one in the ■ of his satires, the other in the last of his epistles, which seem to represent life only ■ a season of luxury.

*—Eratæ contactus tempore vixit
Odat in convivis satius
Lascivæ entus, edunt ■ atque bebent.
Tempus abire libi*

Which may be thus put into English.

Life's ■ a feast, and when we die
■ would ■, if he were by,
Friend, thou hast eat and drank enough,
'Tis time now to be marching off
Then like a well-fed guest depart,
With cheerful looks and ease at heart
But all your friends good night, and say,
You've done the business of the day

DIALOGUE I.

Between Philocles and Horatio meeting accidentally in the fields, concerning Virtue and Pleasure.—From the Pennsylvania Gazette, No. 64, June 23, 1790.

Philocles. ■ Horatio! I ■ very glad to ■ you; prithes how came such a ■ ■ you alone? and musing too? What misfortune in your pleasures has sent you to philosophy ■ relief.

Horatio. You guess very right, my dear Philocles: we pleasure-hunters ■ without them; and yet, so enchanting is the game, ■ quit the chase. How calm ■ your life, how free from ■ embarrassments and future ■ I know you love ■ and look with compassion upon my conduct: show ■ them the path which leads up to that constant and invariable good, which I have heard you so beautifully describe, and which you ■ so fully to possess.

Phil. There ■ few men in the world I value more ■ you, Horatio! for amidst all your foibles, ■ painful pursuits of pleasure,

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I have oft observed in you ■ honest heart, and a mind strongly ■ towards virtue. I wish, from my soul, I ■ you in acting steadily the part of a reasonable creature: for, if you would ■ think it a paradox, I should tell you I love you better than you do yourself.

Hor. A paradox indeed! better than I do myself: when I love my dear ■ so well, that I love every thing else for my own sake.

Phil. He only loves himself well, who rightly and judiciously loves ■

Hor. What do you mean by that, Philocles? You men of reason and virtue ■ always dealing in mysteries, though you laugh ■ them when the church makes them. I think he loves himself very well and very judiciously too; ■ you call it, who allows himself to do whatever he pleases.

Phil. What, though it ■ the ruin ■ destruction of that very self which he loves so well! That ■ alone loves himself rightly, who procures the greatest possible good ■ himself through the whole of his existence; and ■ pursues pleasure ■ not ■ give for it more than it is worth.

Hor. That depends all upon opinion. Who shall judge what the pleasure is worth? Suppose a pleasing form of the fair kind strikes me so much, that I ■ enjoy nothing without the enjoyment of that one object. Or, that pleasure in general ■ so favourite a mistress, that I will take her ■ men do their wives, for better, for worse; minding ■ consequences, nor regarding what is to come. Why should I not do it?

Phil. Suppose, Horatio! that ■ friend of yours entered into the world, about two and twenty, with a healthful rigorous body, and a fair plentiful estate of about five hundred pounds a year; and yet, before he ■ reached thirty, should, by following his pleasures, and not, as you say, duly regarding ■ quences, have run out of his estate, and dissipated his body to that degree, that he had neither the means ■ capacity of enjoyment left; nor any thing else ■ do but wisely shoot himself through the head ■ ■ what would you say to this unfortunate ■ duct? Is it wrong by opinion ■ fancy only? Or is there really ■ right and wrong ■ this case? Is not ■ of life and action juster than another? Or one ■ of conduct preferable to another? Or, does that miserable ■ son of pleasure appear ■ reasonable and lovely a being in your eyes, as a man, who by prudently and rightly gratifying his natural passions, had preserved his body in full health and his estate entire, and enjoyed both ■ ■ good ■ age, and then died with ■ thankful heart for the good things he had received, and ■ ■ entire submission to ■ will of Him who first called him into being. Say, Horatio! are these ■ equally ■ happy?

And every thing to be measured by mere fancy and opinion, without considering whether that fancy or opinion be right.

Hor. Hardly so neither, I think; yet sure the wise and good Author of nature could never make us to plague us. He could never give us passions, on purpose to subdue and conquer them; nor produce this self of mine, or any other self, only that it may be denied; for, that is denying the works of the great Creator himself. Self-denial then, which is what I suppose you mean by prudence, seems to me not only absurd, but very dishonourable to that wisdom and goodness which is supposed to make so ridiculous and contradictory a creature, that must be always fighting with himself in order to be at rest, and undergo voluntary hardships in order to be happy: are we created sick, only to be commanded to be sound? Are we born under one law, passions, and yet bound another, that of reason? Answer me, Philoclea, for I am warmly concerned for the honour of the mother of us all.

Phil. I find, Horatio, my two characters have frightened you; so that you decline the trial in good; by reason: and had rather make a bold attack upon Providence; the usual way of you gentlemen of fashion, who, when, by living in defiance of the eternal rules of reason, you have plunged yourselves into a thousand difficulties, endeavour to make yourselves easy, by throwing the burden upon nature; you are, Horatio, in a very miserable condition indeed; for you say, you cannot be happy if you control your passions; and you feel yourself miserable by an unrestrained gratification of them: so that here is evil, irremediable evil either way.

Hor. That is very true, at least it appears so to me; pray what have you to say, Philoclea, in honour of nature or Providence; methinks, I am in pain for her; How do you rescue her! poor lady!

Phil. This, my dear Horatio, I have to say that what you find fault with and clamour against, as the most terrible evil in the world, self-denial, is really the greatest good, and the highest self-gratification. If indeed you use the word in the sense of some weak sour moralists, and much weaker divines; you will have just reason to laugh at it; but, if you take it, as understood by philosophers, and men of sense, you will presently see her charms, fly to her embraces, notwithstanding her demure looks, as absolutely necessary to produce even your own darling sole good, pleasure; for, self-denial is never a duty, or a reasonable action, but as it is a natural means of procuring more pleasure you can taste without it, that this grave saint-like guide to happiness, as rough and dreadful as she has been made to appear, is

in truth, the kindest and most beautiful mistress in the world.

Hor. Prithee, Philoclea, do not wrap yourself in allegory and metaphor: why do you tease me thus? I long to be satisfied, what is philosophical self-denial; necessity and reason of it; I am impatient, and all on fire; explain, therefore, in your beautiful natural easy way of reasoning, what I to understand by grave lady of yours with forbidding downcast looks, and yet, so absolutely necessary to my pleasures, I stand ready to embrace her; for you know, pleasure I court under all shapes and forms.

Phil. Attend then, and you will see the reason of this philosophical self-denial. There can be no absolute perfection in any creature, because every creature is derived from something of a superior existence, and dependant on that source for its own existence: no created being can be all-wise, all-good, and all-powerful, because his powers and capacities are finite and limited: consequently whatever is created must, in its own nature, be subject to error, irregularity, excess, and imperfection. All intelligent rational agents find in themselves a power of judging what kind of beings they are: what actions are proper to preserve them; and what consequences will generally attend them; what pleasures they are formed for, and to what degree their natures are capable of receiving them. All we have to do then, Horatio, is to consider, when we are surprised with a new object, and passionately desire to enjoy it, whether the gratifying that passion be consistent with the gratifying other passion and appetites equal, if not more necessary to us. And whether it consists with happiness to-morrow, next week, or next year; for, as we all wish to live, we are obliged, by reason, to take as much care for our future, as our present happiness, and not build one upon the ruins of the other: but, if through the strength and power of a present passion, and through want of attending to consequences, we have erred and exceeded the bounds which nature has reason have set us; we are then, for our sakes, to refrain, or deny ourselves present momentary pleasure, for a future, constant, and durable one; so that this philosophical self-denial is only refusing to do an action, which you strongly desire; because it is inconsistent with your health, convenience, circumstances in the world; or, in other words, because it would cost you more than it was worth. You would lose by it, as a man of pleasure. Thus you see, Horatio, that self-denial is only the reasonable, but the most pleasant thing in the world.

Hor. We are just coming into this, so that we cannot pursue this argument any farther at present; you have said a great deal for na-

ture, Providence ■■■■■: happy are they who ■■■ follow such divine guides.

■ ■ ■ Horatio, good night! I wish you wise pleasures.

Hor. I wish, Philocles, I could be ■ wise in my pleasures, ■ you ■ pleasantly wise; your wisdom ■ agreeable; your virtue ■ amiable; ■ your philosophy the highest luxury. Adieu! thou enchanting ■■■■■

DIALOGUE II.

Between Philocles and Horatio, concerning Virtue and Pleasure.—From the Pennsylvania Gazette, No. 88, July 9, 1780.

Philocles.—Dear Horatio, where hast thou ■■■ these three or four months! What ■■■ adventures have you ■■■ upon since I met you in these delightful all-inspiring fields, and wondered how such a pleasure-hunter ■ you could bear being alone?

Horatio. O Philocles! thou best of friends, because a friend to reason and virtue: I am very glad ■ see you: do ■ you remember, I told you then, that ■■ misfortunes in my pleasures had sent ■ to philosophy for relief; but now I do assure you, I can, without a sigh, leave other pleasures for those of philosophy: I can hear the word reason mentioned, and virtue praised, without laughing. Do not I bid fair for conversion, think you?

Phil. Very fair, Horatio: for I remember the time when reason, virtue, and pleasure ■■ the same thing with you: when you counted nothing good but what pleased; nor any thing reasonable but what you gained by: when you made ■ jest of a mind, and the pleasure ■ of reflection: and elegantly placed your sole happiness, like the rest of the animal creation, in the gratification of ■■■■

Hor. I did so; but in ■■ last conversation, when walking upon the brow of this hill, and looking down on that broad rapid river, and yon widely extended, beautifully varied plain, you taught me another doctrine: you showed me, that self-denial, which above all things I abhorred, was really the greatest good, and the highest self-gratification, and absolutely necessary to produce ■■ my ■■ darling sole good, pleasure.

Phil. True: I told you, that self-denial was never a duty, but when ■ was a natural means of procuring more pleasure, than we could taste without it: that ■■ all strongly desire to live, ■■ to live only ■ enjoy, we should take ■ much ■■■ about our future as ■■ present happiness; and not build one upon the ruins of the other: that we should look to the end, and regard consequences: and if, through ■■■ of attention, ■■ ■■ erred, ■■ exceeded ■■ ■■ which nature had set us, ■■ then obliged, for ■■ own sakes, ■■ refrain, or deny ourselves a present momentary pleasure, ■■ a future, constant, and durable good.

Hor. You have shown, Philocles, ■■ self-denial, which weak ■ interested men have rendered the most forbidding, ■■ really the most delightful and amiable, ■■ most reasonable and pleasant thing in the world. In a word, if I understand you aright, self-denial is, in truth, self-recognizing, self-acknowledging, or self-owning. But now, my friend, you are to perform another promise; and, show me ■■ path which leads up ■■ that constant, durable, and invariable good, which I have heard you so beautifully describe, and which you ■■ ■■ fully ■■ possess. Is not this good of yours a mere chimera? Can any thing be constant in ■ world which is eternally changing? ■■ which appears to exist by an everlasting revolution of one thing into another, and where every thing without ■ and every thing within us, is ■■ perpetual motion. What is this ■■ durable good, then, of yours? Prithce satisfy my soul, for I am all on fire, and impatient ■ enjoy her. Produce this eternal blooming goddess, with never fading charms; and ■■ whether I will not embrace her with ■■ much eagerness and rapture as you.

Phil. You ■■ enthusiastically warm, Horatio; I will wait till you are cool enough to attend to the sober dispassionate voice of reason.

Hor. You mistake me, my dear Philocles, my warmth is ■■ so great ■■ to run away with my reason: it is only just raised enough to open my faculties, and fit them to receive those eternal truths, and that durable good which you ■■ triumphantly boast of. Begin then, I am prepared.

Phil. I will, I believe; Horatio, with all your scepticism about you, you will allow that good to be ■■ which ■■ never absent from you, and that to be durable, which ■■ ends out with your being.

Hor. Yes, go on.

Phil. That ■■ never be the good of a creature, which when present the creature may be miserable, and when absent, is certainly ■■

Hor. I think not; but pray explain what you ■■ for I am not much used to this abstract way of reasoning.

Phil. I mean, all the pleasures of sense. The good of man cannot consist in the mere pleasures of sense; because, when any one of those objects which you love is absent, or cannot be come at, you ■■ certainly miserable: and if the faculty be impaired, though the object be present, you cannot enjoy it. So that this sensual good depends upon thousand things without and within you, ■■ out of your power. Can ■■ then ■■ the good of man? Say, Horatio, what think you, is not this a chequered, fleeting, ■■■■ good? Can that, in any propriety of speech, be called ■■ the good of man, which even, while he is

tasting, ■■■ miserable; and which, when ■■■ cannot taste, he is necessarily so? Can that be our good, which costs us a great deal of pains to obtain; which always is possessing; for which ■■■ must wait the return of appetite, before we can enjoy again? Or, is that our good which ■■■ can come ■■■ without difficulty; which is heightened by possession; which ■■■ ends in weariness and disappointment; and which, ■■■ more we enjoy, the better ■■■ qualified ■■■ are to enjoy on?

Hor. The latter, I think; but why do you torment me thus? Philocles, ■■■ me ■■■ good immediately.

■■■ I have showed you what it is not; it is not sensual, but it is rational and moral good. It is doing all the good we ■■■ to others, by acts of humanity, friendship, generosity, and benevolence: this is that constant and durable good, which will afford contentment and satisfaction always alike, without variation ■■■ diminution. I speak to your ■■■ perience now, Horatio. ■■■ did you ■■■ find yourself weary of relieving the miserable? Or of raising the distressed into life or happiness? Or rather, do not you find the pleasure grow upon you by repetition; and that it is greater in reflection that in the act itself? Is there a pleasure upon earth ■■■ be compared with that which arises from the sense of making others happy? Can this pleasure ever ■■■ absent, ■■■ ever end but with your being? Does it not always ■■■pany you?

■■■ lie down and rise with you, live as long as you live, give you consolation in the article of death, and remain with you in ■■■ gloomy hour, when all other things are ■■■ to forsake you, or you them?

Hor. How glowingly you paint, Philocles; methinks Horatio ■■■ amongst the enthusiasts. I feel the passion: ■■■ enchantingly convinced; but I do ■■■ know why: overborn by something stronger than ■■■ Sure, ■■■ divinity speaks within me; ■■■ prithe, Philocles, give me coolly the cause, why this rational and moral good ■■■ infinitely exceeds the ■■■ natural ■■■ sensual.

■■■ I think, Horatio, that I have clearly shown you the difference between merely natural or sensual good, and rational or moral good. Natural or sensual pleasure continues no longer than the action itself; but this divine or moral pleasure continues when the action is over, and swells and grows upon your hand by reflection: the one is inconstant, unsatisfying, of short duration, and attended with numberless ills; the other is constant, yields full satisfaction, is durable, and no evils preceding, accompanying, or following it. But if you inquire farther into the cause of this difference, and would know why the moral pleasures are greater than the sensual; perhaps the reason is the same, as in all other creatures, that their happiness or chief good

consists in acting up to their chief faculty, ■■■ faculty which distinguishes them from all creatures of a different species. The chief faculty in man is his reason; and consequently, his chief good; or, that which may be justly called his good consists not merely in action, but in reasonable action. By reasonable actions, we ■■■ those actions, which are preservative of the human kind, ■■■ naturally ■■■ to produce real ■■■ happiness; and these actions, by way of distinction, we ■■■ actions ■■■ good.

Hor. You speak very clearly, Philocles; but, that no difficulty may remain upon your mind, pray tell me, what is the real difference between natural good and evil, and moral good and evil; for I know several people who use the terms without ideas.

Phil. That may be: the difference lies only in this, that natural good and evil, are pleasure and pain: moral good and evil, are pleasure or pain produced with intention and design. For, it is the intention only ■■■ the agent morally good or bad.

Hor. But may not a man, with a very good intention, do an evil action?

Phil. Yes; but then he errs in his judgment, though his design be good: if his error is invincible, or such ■■■ all things considered, he could not help, he is inculpable; but, if it arose through want of diligence in forming his judgment about the nature of human actions, he is immoral and culpable.

Hor. I find, then, that in order to please ourselves rightly, or to do good to others morally, we should take great care of our opinions.

Phil. Nothing concerns you more; for, as the happiness or real good of men consists in right action; and right action cannot be produced without right opinion; it behoves us above all things ■■■ this world, to take ■■■ that our own opinions of things be according to the nature of things. The foundation of all virtue and happiness is thinking rightly. He who sees an action is right, that is, naturally tending to good, and does it because of that tendency, he only is a moral man; and he alone is capable of that constant, durable, and invariable good, which ■■■ subject of this conversation.

Hor. How, ■■■ philosophical guide, shall be able to know, and determine certainly, what is right and wrong in life?

Phil. As easily as you distinguish a circle from a square, or light from darkness. Look, Horatio, into the sacred book of nature; read your own nature, and view the relation which other men stand in to you, and you to them, and you will immediately see what constitutes human happiness, and consequently, what is right.

Hor. We are just coming into town, and can say no more at present. You are ■■■ good

genius, Philocles, you have showed me what good; you have redeemed me from slavery and misery of folly and vice; and made me a free and happy being.

Then am I the happiest man in the world; be you steady, Horatio, depart from reason virtue.

Hor. Sooner will I lose my existence. Good night, Philocles.

Phil. Adieu, dear Horatio.

POOR RICHARD'S ALMANAC.

*The Way to Wealth, as clearly shown in the Preface of an old Pennsylvania Almanac, entitled, Poor Richard Improved.**

COURTEOUS READER.—I have heard, that nothing gives an author great pleasure. I find his works respectfully quoted by others. Judge, then, how much I must have been gratified by an incident I am going to relate to you. I stopped my horse lately, where a great number of people collected, at an auction of merchant's goods. The hour of the sale not being come, they were conversing on the badness of the times, and one of the company called to a plain clean old man, with white locks. "Pray, Father Abraham, what think you of the times? Will not these heavy taxes quite ruin the country? How shall we ever be able to pay them? What would you advise us to do?"—Father Abraham stood up, and replied, "If you would have my advice, I will give it to you in short. 'For a word to the wise is enough,' as Poor Richard says. They joined in desiring him to speak his mind, and gathering round him, he proceeded as follows:—

"Friends," says he, "the taxes are, indeed, very heavy, and, if those laid by the government be the only ones we had to pay, we might easily discharge them; but we have many others, and much more grievous to some of us. We are taxed twice as much by our idleness, three times as much by our pride, and four times as much by our folly; and from these taxes the commissionaries deliver us, by allowing an abatement. However, let us hearken to good advice, and something may be done for us; 'God helps them that help themselves,' as poor Richard says.

"1. It would thought a government that people spend the tenth part of their time, to be employed in its service, but idleness taxes many of us much more; sloth,

by bringing diseases, absolutely shortens life. 'Sloth, like rust, consumes faster than fire wears, while the key is always bright,' as poor Richard says. 'Love life, then do not squander time, for that is the stuff life is made of,' as poor Richard says. How much more than is necessary do we spend in sleep! forgetting, that 'the sleeping fox catches no poultry, and that there must be sleeping enough in the grave,' as poor Richard says.

"If time be of all things the most precious, wasting minutes must be reckoned as poor Richard says, 'the greatest prodigality;' since, as he elsewhere tells us, 'lost time is never found again; and what call time enough always proves little enough;' let us then up and be doing, and doing to the purpose; so by diligence shall we do more with less perplexity. 'Sloth makes all things difficult, but industry all easy, and he that sleeth late, doth trot all day, and shall shortly overtake his business at night, while business travels so slowly, that poverty soon overtakes him. Drive thy business, let not that drive thee, and early to bed, and early to rise, makes a man healthy, wealthy, and wise,' as poor Richard says.

"So what signifies, wishing and hoping for better times? We may make these times better, if we better ourselves. 'Industry need not wish, and he that lives upon hope will die fasting. There are no gains without pains, then help hands, for I have no lands,' or, if I have, they are sadly taxed. 'He, that hath a trade, hath an estate, and, he that hath a calling, hath an office of profit and honour,' as poor Richard says; but then the trade must be worked at, and the calling well followed. 'It is rather the estate than the office will enable us to pay our taxes. If we are industrious, we shall never starve; for, 'at the working man's house, hunger looks in, but dares not enter.' Nor will the bailiff or the constable enter, for 'industry pays debt,' while despair increaseth them."—What thought you have found no treasure, nor any rich relation left you a legacy, "diligence is the mother of good luck, and God gives all things to industry. Then plow deep, while sluggards sleep, and you shall have corn to sell and to keep." Work while it is called to-day, you know how much you may be hindered to-morrow. "One to-day is worth two to-morrow," as poor Richard says, and farther, "leave that till to-morrow, which you can do to-day." If you were a servant, would you be ashamed that a good master should catch you idle? Are you then your own master? Be ashamed to catch yourself idle, when there is so much to be done for yourself, your family, your country, and your king. Handle your tools without mutinies; remember, that, 'the hand in the glove

* Dr Franklin for many years published the Pennsylvania Almanac called *Poor Richard's Almanac*, and furnished it with many wise and proverbial sayings, which had principle relation to the topics of industry, attention to one's own business, and frugality. These sayings were collected and disposed in the preface were read with much avidity and perhaps tended more to the formation of national character than any other.

catches no mice," as poor Richard says. It is true, there is much to be done, and perhaps you are weak-handed; but stick to it steadily, and you will see great effects, for "con- dropping away stones; and by diligence patience the mouse in the cable; and strokes fall great oaks."

"Methinks I hear some of you say, "must a himself leisure?" I thee, my friend, what poor says; "employ thy time well, if thou meanest to gain leisure; and since thou not sure of a minute, throw not away an hour." Leisure is time for doing something useful; this leisure diligent man obtain, but the lazy never; for "a life of leisure and a life of laziness are two things. Many, without labour, would live by their wife only, but they break of;" whereas industry gives comfort, plenty, and respect. "Fly pleasures, and they will follow you. The diligent spinner has a large shift; and now I have a sheep and a cow, every me good."

"II. But with industry must likewise be steady, settled, and careful, and oversee our own affairs with our own eyes, and not trust too much to others; for, as poor Richard

"I never saw off-removed
Nor yet so off-removed handy.
That as well as that be"

And again, "three removes is as a fire;" and again "keep thy shop, and thy shop will keep thee;" and again, "if you would have your business done, go, if send." And again,

"He that by the plough would thrive,
Hisself must either hold or drive."

And again, "the eye of a master will do more work than both hands;" and again, "want of care does damage; want of knowledge;" and again, "not to oversee workmen, to leave them your purse open." Trusting much to other's is the ruin of many; for, "in the affairs of this world, men are saved, not by faith, but by the of it;" but a man's is profitable; for, "if you would have a faithful servant, and one that you like, serve yourself. A little neglect may breed great mischief; for want of a nail the shoe lost, and for want of a shoe the horse was lost, and for want of a horse rider was lost," being overtaken and slain by the enemy; all for want of a about a horse-shoe nail.

"III. So much for industry, my friends, and attention to one's own business; but to we must add frugality, if we would make our industry more certainly successful. A man may, if he knows not how to save as he gets, "keep his nose all his life to the grindstone, and die not worth a groat at last. A fat kitchen makes a lean will," and

"Many estates are spent in the getting,
Since women for less farrow spinning and knitting,
And men for goose forsook hewing and splitting."

"If you would wealthy, think of saving, as well as of getting. have made Spain rich, because her outgoes are greater than her incomes."

"Away then, with your expensive follies, and you will not then have so much cause to complain of hard times, heavy taxes, and chargeable families; "

" and wine, decent.
small, the great."

And farther, "what maintains one vice, would bring up two children." You may think, perhaps, that a little tea, a punch now, and then, diet a little more costly, clothes a finer, and a little entertainment now then, no great matter; remember, "many a little makes a mickle." Beware of expenses; "a leak will great ship," as poor Richard says; and again, "who daunties love, shall beggars prove;" and moreover, "fools make feasts, and wise men eat them."

"Here you all got together to this sale of fineries and nick-nacks. You call them goods, but if you do not take care, they will prove evils to some of you. You expect they will be sold cheap, and perhaps they may, for than they cost; but if you have a sion for them, they must be dear to you. Remember what poor Richard says, "buy what thou hast no need of, and ere long thou shalt thy necessaries." And again, "at a great pennyworth pause a while." He means that perhaps the cheapness is apparent only, and not real; is the bargain, by straitening thee in thy business, may do thee more harm than good. For in another place he "many have been ruined by buying good pennyworths." Again, "it is foolish to lay out money in a purchase of repentance;" and yet this folly is practised every day at auctions, for want of minding almanac. Many a one, for the sake of finery on the back, have gone with a hungry belly, and half starved their families; "silks and satins, scarlet and velvets, put kitchen fire," as poor Richard says. These are not the necessities of life, they can scarcely called the conveniences; and yet, only because they look pretty, how many want to have them! By these other extravagancies, the gentles are reduced to poverty, and forced to borrow of those whom they formerly despised, but who, through industry and frugality, have maintained their standing; in which case it appears plainly, that "a ploughman on his legs is higher than a gentleman on knees," as poor Richard says. as they have had a small estate left them, which they knew not the getting of; they think "it is day, and it will never be night;" that a little to be spent

out of so much is not worth minding; but "always taking out of ■■■ meal-tub, and never putting in soon comes to the bottom," as poor Richard says; ■■■ then, "when the well ■■■ dry, they know the worth of water." But this they might have known before, if they had taken his advice: "if you would know the value of money go and try to borrow some; for he that goes a borrowing goes a sorrowing," as ■■■ says; ■■■ indeed so does he that lends to such people, when he goes to get it again. Poor Dick further advises, and says,

"Food pride of dress is sure a curse,
Ere fancy you consult, consult your purse."

And again, "pride is as loud a beggar as want, and a great deal more noisy." When you have bought one fine thing, you must buy ten more, that your appearance may be all of a piece; but poor Dick says, "it is easier to suppress the first desire than to satisfy all that follow it;" and it is as truly folly for the poor to ape the rich, as for the frog to swell in order to equal the ox.

"Vanity's ways may venture more,
But little boats should keep near shore."

■ is, however, a fully soon punished; for, as poor Richard says, "pride that dines on vanity, sups on contempt; pride breakfasted with plenty, dined with poverty, and supped with infamy." And, after all, of what use is this pride of appearance, for which so much is risked, so much is suffered? It cannot promote health, nor ease pain; it makes no increase of merit in the person; it creates envy, it hastens misfortune.

But what madness must it be to run in debt for these superfluities! We are offered by the terms of this sale six months credit; and that perhaps has induced some of us to attend it, because we cannot spare the ready money, and hope now to be fine without it. ■■■ ah! think what you do when you run in debt; you give to another power over your liberty. If you cannot pay at the time, you will be ashamed to see your creditor, you will be in fear when you speak to him, when you will make poor, pitiful, sneaking excuses, and by degrees come to loose your veracity, and sink into base, downright lying; for, "the second vice is lying; the first is running debt," as poor Richard says; and again to the same purpose, "lying rides upon debt's back;" whereas a free-born Englishman ought ■■■ to be ashamed nor afraid to see or speak to any man living. ■■■ poverty often deprives a man of all spirit and virtue. "It is hard for an empty bag to stand upright. What would you think of ■■■ prince, or of ■■■ government, who should issue an edict forbidding you to dress like a gentleman or gentle woman, on pain of imprisonment or servitude? Would you not say, that you were free, have a right to dress as you please, and

that such an edict would ■■■ a breach of your privileges, and such a government tyrannical? And yet you are about ■■■ put yourself under that tyranny, when you ■■■ in debt ■■■ such dress! your creditor has authority, at his pleasure, to deprive you of your liberty, by confining you in goal for life, or by selling you for a servant, if you should not be able ■■■ him. When you have got your bargain, you may, perhaps, ■■■ of payment; but, ■■■ poor ■■■ hard ■■■ "creditors have better memories ■■■ debtors: creditors ■■■ peratitious sect, great observers of set-days ■■■ times." The day ■■■ round before you are ■■■ and the debt ■■■ made before you are prepared to satisfy it; or, if you bear your debt in mind, the ■■■ which ■■■ first seemed so long, will as ■■■ lessens, appear ■■■ tremely short; ■■■ will seem ■■■ have added wings ■■■ his heels as well ■■■ shoulders. "These have a short lent, who owe money to ■■■ paid ■■■ Easter." At present, perhaps, you may think yourselves in thriving ■■■ stances, ■■■ that you can bear a little extravagance without injury; but

"For age and want ■■■ while you may
No morning sun lasts ■■■ day."

Gain may be temporary and uncertain, but ■■■ while you live, expense ■■■ constant and certain; and, "it is easier to build ■■■ chimneys than to keep one in fuel," as poor Richard says; so, "rather go to bed supperless than ■■■ in debt."

"Get what you can, and what you get hold.
Tis the stone that will turn all your lead into gold."

And when you have got the philosopher's stone, sure you will ■■■ longer complain of bad times, ■■■ the difficulty of paying ■■■
IV. This doctrine, my friends, is reason and wisdom: but, after all, do not depend too much upon your own industry, and frugality, and prudence, though excellent things; for they may all be blasted, without the blessing of Heaven; and therefore ■■■ that blessing humbly, ■■■ be not uncharitable ■■■ those ■■■ at present seem to want it, ■■■ comfort and help them. Remember Job suffered, and was afterwards prosperous.

And now, to conclude, "experience keeps a dear school, but fools will learn in no other," as poor Richard says, and ■■■ in that; for, it is true, "we may give advice, but we cannot give conduct;" however, remember this, "they that will not be counselled cannot ■■■ helped;" ■■■ farther, ■■■ "if you will not hear reason she will surely ■■■ your knuckles," as poor Richard says.

Thus the old gentleman ended his harangue. The people ■■■ it, ■■■ approved the doctrine; ■■■ immediately practised ■■■ every, just as if it had been a common sermon, for the auction opened, and they began to buy extravagantly.—I found ■■■ good man had thoroughly studied my almanac, and digested

I had dropt on those topics during the course of twenty-five years. The frequent mention of me have tired one else; but my vanity was wonderfully delighted with it, though I was conscious, that a tenth part of the wisdom was my own, which he ascribed to me, but rather gleanings that I had made of the sense of all ages and nations. However, I resolved to be the better for the echo of it; and, though I had at determined to buy stuff for a new coat, I went away, resolved my old one a little longer. Reader, if thou wilt do the same, thy profit will be as great.

RICHARD

To Friend A. B.

Advice to a Young Tradesman.—Written Anno 1748.

As you have desired it of me, I write the following hints, which have been of service to me, may, if observed, be so to you.

Remember, time is money. He can ten shillings a day by his labour, and goes abroad, or sits idle half that day, though he spends but sixpence during diversion or idleness, ought not to reckon that the only expense; he has really spent, or rather thrown away, five shillings besides.

Remember, that credit is money. If a man his money lie in my hands after it is due, he gives me the interest, so much as I can make of it, during that time. This amounts to a considerable sum where a man has good and large credit, and makes good use of it.

Remember, that money is of a prolific generating nature. Money can beget money, and its offspring can beget more, and so on. Five shillings turned is six, turned again it is seven and three-pence, and so on till it becomes a hundred pounds. The more there is of it, the it produces every turning, so that the profits rise quicker and quicker. He that breeding destroys all her offspring to the thousandth generation. That murders a destroys that it might have produced, even of pounds.

Remember, six pounds a year is but a groat a day. For this (which may be daily wasted either in or expense unperceived) a of credit may, on his own security, have the possession and of a hundred pounds. So much in stock, briskly turned by an industrious man, produces great advantage.

Remember this saying, "the good paymaster is lord of another man's purse." He that is known to pay punctually and exactly to the time promises may at any time, and on any occasion, money his friends can spare. is sometimes of great industry frugality, nothing contributes more to raising of a

than punctuality justice in all dealings: therefore, never keep borrowed an hour beyond the time you promised, lest a disappointment shut up your friend's purse for ever.

The most trifling actions that affect a man's credit are to be regarded. The sound of your hammer five in the morning, or nine at night, heard by a creditor, makes him easy six months longer: but if he sees you at a billiard-table, your your tavern, when you should work, sends for his money the next day; demands before he can receive it in a lump.

It shows, besides, that you are mindful of what you owe; it makes you appear a careful as well as an honest man, and that still increases your credit.

Beware of thinking all your own that you possess, and of living accordingly. It is a mistake that many people who have credit into. To prevent this, keep an exact account for some time, both of your expenses and your income. If you take the pains at first to mention particulars, it will have this good effect: you will discover how wonderfully small trifling expenses up to large sums, and will discern what might have been, and may for the future be saved, without occasioning any great inconvenience.

In short, the way to wealth, if you desire it, as plain as the way to market. It depends chiefly on two words, industry and frugality; that waste neither time nor money, but make the best of both. Without industry and frugality nothing will do, and with every thing. He, that gets all he honestly, and all he gets (necessary expenses excepted,) will certainly become rich—if that Being who governs the world, whom all should look for a blessing their honest endeavours, doth not, in his wise providence, otherwise determine.

Necessary Hints to those that would be rich.
Written Anno 1736.

THE use of money is all the advantage there is in having money.

For six pounds a year you have the use of one hundred pounds, provided you are a man of known prudence and honesty.

He, that spends a groat a day idly, spends idly above six pounds a year, which is the price for the use of one hundred pounds.

He, that wastes idly a groat's worth of his per day, day with another, the privilege of using one hundred pounds each day.

He, that idly loses shillings worth of time, loses five shillings, might as prudently throw five shillings into the

He, that loses five shillings, only loses sum, but the advantage that might be

made by turning ■ in dealing, which, by the ■ ■ ■ ■ ■ becomes old, ■ ■ ■ ■ ■ amount to a considerable sum of money.

Again: he, that sells upon credit, asks a ■ ■ ■ ■ ■ for ■ ■ ■ ■ ■ sells equivalent to the principal and interest of ■ ■ ■ ■ ■ money for the ■ ■ ■ ■ ■ he is to be kept ■ ■ ■ ■ ■ of it; therefore, he that buys upon credit, pays interest for what he buys, and he, that pays ready money, might let that money out to use: so that he, that possesses any thing ■ ■ ■ ■ ■ bought, pays interest for the use of it.

Yet, in buying goods, ■ ■ ■ ■ ■ is best to pay ready money, because he ■ ■ ■ ■ ■ upon credit, expects to ■ ■ ■ ■ ■ five per cent. by ■ ■ ■ ■ ■ debts; therefore he charges, on all ■ ■ ■ ■ ■ sells upon credit, an advance, ■ ■ ■ ■ ■ make up that deficiency.

Those, who pay for what they buy upon credit, pay ■ ■ ■ ■ ■ share of this advance.

He, that pays ready money, escapes, or may escape, that charge.

■ ■ ■ ■ ■ penny ■ ■ ■ ■ ■ two-pence clear;
A pun a day's a groat a year.

The way to make Money plenty in every Man's Pocket.

At this time, when the general complaint is, that "money is scarce," it will be an act of ■ ■ ■ ■ ■ to inform the moneyless how they may reinforce their pockets. I will acquaint them with the true ■ ■ ■ ■ ■ of money-catching, ■ ■ ■ ■ ■ certain ■ ■ ■ ■ ■ to fill empty purses, and how to ■ ■ ■ ■ ■ them always full. Two simple rules, well observed, will do the business.

First, let honesty and industry be thy constant companions; and

Secondly, spend one penny less than thy clear gains.

Then ■ ■ ■ ■ ■ thy hide-bound pocket ■ ■ ■ ■ ■ begin to thrive, and will ■ ■ ■ ■ ■ again cry with the empty belly-ache: neither will creditors insult thee, ■ ■ ■ ■ ■ oppress, ■ ■ ■ ■ ■ hunger bite, ■ ■ ■ ■ ■ nakedness freeze thee. The whole hemisphere will shine brighter, and pleasure spring up in every corner of thy heart. Now, therefore, embrace ■ ■ ■ ■ ■ rules and be happy. Banish the ■ ■ ■ ■ ■ winds of sorrow from thy mind, and live independent. Then shalt thou be ■ ■ ■ ■ ■ man, ■ ■ ■ ■ ■ not hide thy face at the approach of ■ ■ ■ ■ ■ rich, nor suffer the pain of feeling little when the sons of fortune walk at thy ■ ■ ■ ■ ■ hand: for independency, whether with little ■ ■ ■ ■ ■ much, ■ ■ ■ ■ ■ good fortune, and placeth thee on ■ ■ ■ ■ ■ ground with ■ ■ ■ ■ ■ proudest of the golden fleece. Oh, then, ■ ■ ■ ■ ■ wise, and let industry walk with thee in the morning, ■ ■ ■ ■ ■ attend thee until thou reachest the evening hour for rest. Let honesty be as the breath of thy soul, ■ ■ ■ ■ ■ forget ■ ■ ■ ■ ■ have ■ ■ ■ ■ ■ when all thy expenses are ■ ■ ■ ■ ■ rated ■ ■ ■ ■ ■ paid: ■ ■ ■ ■ ■ thou reach the point of happiness, ■ ■ ■ ■ ■ independency ■ ■ ■ ■ ■ be thy shield and buckler, thy helmet and crown; then shall

Vor. II. . . . 3 ■ ■ ■ ■ ■

thy soul walk upright, nor stoop to the sill ■ ■ ■ ■ ■ wretch because he hath riches, nor pocket an abuse because the hand which offers it wears a ring set with diamonds.

The Handsome ■ ■ ■ ■ ■ Deformed Leg.

There are two sorts of people in the world, who, with equal degrees of health and wealth, ■ ■ ■ ■ ■ the other comforts of life, become, the one happy, and the other miserable. ■ ■ ■ ■ ■ arise very much from the different views in which they consider things, persons, and events; ■ ■ ■ ■ ■ the effect of those ■ ■ ■ ■ ■ views upon their own minds.

In whatever situation ■ ■ ■ ■ ■ can ■ ■ ■ ■ ■ placed, they may ■ ■ ■ ■ ■ conveniences ■ ■ ■ ■ ■ inconveniences; in whatever company, they may ■ ■ ■ ■ ■ persons and conversation ■ ■ ■ ■ ■ less pleasing; ■ ■ ■ ■ ■ whatever table, they may ■ ■ ■ ■ ■ with ■ ■ ■ ■ ■ and ■ ■ ■ ■ ■ of better and ■ ■ ■ ■ ■ taste, ■ ■ ■ ■ ■ better ■ ■ ■ ■ ■ worse dressed; ■ ■ ■ ■ ■ whatever climate, they will find good and bad weather: under whatever government, they may ■ ■ ■ ■ ■ good and bad laws, and good and ■ ■ ■ ■ ■ administration of those laws; in whatever poem, or work of genius, they may see faults and beauties; in almost every face, ■ ■ ■ ■ ■ every person, they may discover fine features ■ ■ ■ ■ ■ defects, good and bad qualities.

Under these circumstances, the two sorts of people above mentioned ■ ■ ■ ■ ■ their attention, those who are disposed to be happy, on the conveniences of things, the pleasant parts of conversation; the well-dressed diables, the goodness of ■ ■ ■ ■ ■ wines, the fine weather, &c. and enjoy ■ ■ ■ ■ ■ with cheerfulness. Those, who are to be unhappy, think and speak only of the contraries. ■ ■ ■ ■ ■ they ■ ■ ■ ■ ■ continually discontented themselves, and by their remarks, ■ ■ ■ ■ ■ the pleasures of society, offend personally many people, and make themselves every where disagreeable. If this ■ ■ ■ ■ ■ of mind ■ ■ ■ ■ ■ founded in nature, such unhappy persons would ■ ■ ■ ■ ■ the more to ■ ■ ■ ■ ■ pitied. ■ ■ ■ ■ ■ the disposition to criticise, and to be disgusted, ■ ■ ■ ■ ■ perhaps, take ■ ■ ■ ■ ■ up originally by imitation, and is, unawares, grown into a habit, which, though ■ ■ ■ ■ ■ present strung, may ■ ■ ■ ■ ■ theless be cured, when those who ■ ■ ■ ■ ■ it are convinced of its ■ ■ ■ ■ ■ effects ■ ■ ■ ■ ■ felicity. ■ ■ ■ ■ ■ hope this little admonition ■ ■ ■ ■ ■ of ■ ■ ■ ■ ■ vice to them, and put them on changing a habit, which, though in ■ ■ ■ ■ ■ exercise it ■ ■ ■ ■ ■ chiefly an act of imagination, yet ■ ■ ■ ■ ■ ous consequences in life, as it brings ■ ■ ■ ■ ■ real griefs and misfortunes. For, ■ ■ ■ ■ ■ many are offended by, ■ ■ ■ ■ ■ nobody loves this sort of people, no one shows them ■ ■ ■ ■ ■ than the ■ ■ ■ ■ ■ common civility and respect, and scarcely ■ ■ ■ ■ ■ that; ■ ■ ■ ■ ■ this frequently puts them ■ ■ ■ ■ ■ of humour, and draws them into disputes ■ ■ ■ ■ ■ contentions. ■ ■ ■ ■ ■ they aim ■ ■ ■ ■ ■ obtaining some advantage ■ ■ ■ ■ ■ rank ■ ■ ■ ■ ■ fortune, nobody ■ ■ ■ ■ ■

LAGATELLES.

THE BUSY-BODY,

No. I.

*From the American Weekly Mercury,
February 4, 1729.*

MR. ANDREW BRADWOOD,—I design this to acquaint you, that I, who have been one of your courteous readers, have lately entertained some thoughts of setting up an author myself; not without the least vanity, I assure you, or of showing my parts, but purely for the good of my country.

I have often observed with concern, that your Mercury is always equally entertaining. The delay of ships expected in, and want of fresh advices from Europe, make it frequently very dull; and I find the freezing of our river has the same effect on news as on trade. With more concern I have continually observed the growing vices and follies of my country folk: and though reformation is properly the business of every man, that every one ought to mind one; yet it is true, in this case, that what is everybody's business is nobody's business, and the business is done accordingly. I, therefore, upon mature deliberation, think fit to take nobody's business wholly into my own hands; and, out of regard to the public good, design to erect myself into a kind of censor morum; purporting with your allowance, to make use of the Weekly Mercury as a vehicle in which my observations shall be conveyed to the world.

I am sensible I have in this particular undertaken a very unthankful office, and expect little besides my labour and my pains. Nay, it is probable I may displease a great number of your readers, who will not very well like to pay me shillings a year for being told of their vices, which people delight in the censure, when they themselves are not the objects of it, if any man at my exposure of their private vices, I promise they shall find satisfaction, in a very short time, of seeing their good friends and neighbours in the same circumstances.

However, let me be assured, that I shall always treat them and their affairs with the utmost decency and respect. I intend

now and then to dedicate a chapter wholly to their service; and if my observations contribute any way to the embellishment of their minds, and brightning of their understandings, without offending their modesty, I doubt not of having their favour and encouragement.

It is certain that no country in the world produces naturally finer spirits than ours, men of genius in every kind of science, and capable of acquiring every perfection every qualification, that is in vogue among mankind. As few have the advantage of good books, for want of which good conversation is still more scarce, it would doubtless have been very acceptable to your readers, if, instead of an old out-of-date article from Muscovy or Hungary you had entertained them with some well chosen extract from a good author. This I shall sometimes do, when I happen to have nothing of my own to say that I think of more consequence. Sometimes I purpose to deliver lectures of morality or philosophy, and (because I am naturally inclined to be meddling with things that do not concern) perhaps I may sometimes talk politics. And if I can by any means furnish out a week's entertainment for the public, that will give a rational diversion, and the spare time be instructive to the readers, I shall think my leisure hours well employed: and if you publish this, I hereby invite all ingenious gentlemen and others (that approve of such an undertaking) to my assistance and correspondence.

It is like, by this time, you have a curiosity to be acquainted with my character. As I do not aim at public praise, I design to remain concealed: I mean, that such numbers of my family and relations as this time in the country, that though I have signed my name full length, I am not under the least apprehension of being discovered by it. My character, indeed, I would favour you with, but that I am cautious of praising myself lest I should be told my trumpeter's dead, and I cannot in my heart at present to say any thing of my own disadvantage.

It is very common with authors in their first performances, to talk to their readers thus:—

if this meets with a suitable reception, or, if this should meet due encouragement, I shall publish hereafter, &c. This only manifests the value they put upon their own writings, since they think to frighten the public into their applause, by threatening, that unless you approve what they have already wrote, they intend never to write again; when perhaps it may not be a pin matter whether they ever do or no. As I have not observed the critics to be more favourable on this account, I shall always avoid saying any thing of the kind; and conclude with telling you, that if you send me a bottle of ink and a quire of paper by the bearer, you may depend upon hearing further from, sir, your humble servant,

THE BUSY-BODY.

No. II.

Feb. 11, 1789.

All souls have still an itching to decide
And thus would be upon the laughing side — Pope.

Monsieur ROCHEFOUCAULT tells us in his memoirs, the prince of Condé delighted much in ridicule, and used frequently to shut himself up for half a day together in his chamber, with a gentleman that was his favourite, purposely to divert himself with examining the foible, or ridiculous side, of every person in the court. That gentleman said afterwards in some company, that nothing appeared to him more ridiculous in any body than this same humour in the prince; and I am somewhat inclined to be of this opinion. The general tendency there is to this embellishment, (which I fear has too often grossly imposed upon my countrymen, instead of wit,) and the applause it meets with from a rising generation, fill me with fearful apprehensions for the future reputation of my country: a young man of modesty, (which is the most certain indication of large capacities) is hereby discouraged from attempting to make a figure in life: his apprehensions of being outlaughed, will force him to continue in a restless obscurity, without having an opportunity of knowing his own merit himself, or discovering it to the world, rather than venture to make himself in a place, where a pun or a sneer will be for wit, noise for reason, and the strength of his argument be judged by that of the lungs. Among these worthy gentlemen, let us take a view of Ridentius: what a contemptible figure does he make with his train of paltry admirers! this will give him an hour's diversion, and a cock of a man's hat, the heels of his shoes, an unguarded expression in his discourse, or even a personal defect; the want of his low ambition is to put some one of the company to the blush, who perhaps must pay an equal share of the reckoning with himself.

a fellow makes laughing the sole end and purpose of his life, if it is necessary to his constitution, or if he has a great desire of growing suddenly fat, let him eat; let him give public notice where any dull stupid rogues may get a quart of four-penny for being laughed at; but is he bar barously unhandsome when friends are for the benefit of conversation, and a proper relaxation from business, that one should be the butt of the company, and four men made merry at the cost of the fifth.

How different is this character from that of the good-natured gay Eugenius; who never spoke yet but with a design to divert and please; and who was never yet balked in his intention. Eugenius is the delight in applying the wit of his friends, in being admired himself; and if any one of the company is so unfortunate as to be touched a little nearly, he will make use of ingenious artifices to turn the edge of ridicule another way, choosing rather to make himself a public jest, than to be the pain of seeing his friend in confusion.

Among the tribe of laughers I reckon the pretty gentlemen that write satires, and carry about in their pockets, reading them themselves in all companies which they happen into; taking advantage of the ill taste of the town, to make themselves famous for a pack of paltry low nonsense, for which they deserve to be kicked, rather than admired, by all who have the least tincture of politeness. These I take to be the most incorrigible of all my readers; nay I suspect they be squibbing at the Busy Body himself. However, the only favour he begs of them is, that if they cannot control their overbearing for scribbling, let him be attacked in downright biting lyrics; for there is no satire he dreads half so much as an attempt towards a panegyric.

No. III.

Feb. 14, 1789

Non valde. Tyranni
Veni quæst solida, non uxor
Dux acquiescit turbari Adre
Nec subleuantis magna Jovis

It is said that the Persians, in their ancient constitution, had public schools, in which virtue was taught as a liberal science. It is certainly of a man that has learned to govern his passions; in spite of temptation, to be just in his dealings; to be temperate in his pleasures, to support himself with fortitude under his misfortunes, to behave with prudence in all his affairs, and in every circumstance of life; I say, it is of much more real advantage to him to be thus qualified, than to be a master of all the arts and sciences in the world.

Virtue alone is a great

man glorious and happy. He that acquainted with Cato, as I am, cannot help thinking as I do now, and will acknowledge he deserved without being honoured by it. Cato is a man whom fortune has placed in the most obscure part of the country. His circumstances are such as fully put above necessity, without affording him many superfluities: yet who greater than Cato happened but the other day to be in a house town, where, among others, were met men of the most note in this place; Cato had news with some of them, and knocked at the door. The most trifling actions of a man, in my opinion, as well as the smallest lineaments features of the face, give a nice observer some notion of his mind. Methought he rapped in such a peculiar manner, as seemed of itself to express, there was one who deserved as well as desired admission. He appeared in the plainest country garb; his great coarse, and looked old and threadbare; his linen homespun; his beard perhaps of seven days' growth: his shoes thick and heavy; and every part of his dress corresponding. Why this man received with such concurring respect from every person in the room, from those who had never known him or seen him before? It was not an exquisite form of person or grandeur of dress, struck us with admiration. I believe long habits of virtue have a sensible effect on the countenance: there something in the air of his face, that manifested the true greatness of his mind; which likewise appeared in all he said, and in every part of his behaviour, obliging us to regard him with a kind of veneration. His aspect sweetened with humanity and benevolence, and at the same time emboldened with resolution, equally free from bashfulness and unbecoming appearance. The consciousness of his own innate worth and unshaken integrity render him calm and undaunted in the presence of the great powerful, most extraordinary occasions. His strict justice and known impartiality make him the arbitrator and decider of all differences that arise for many miles around him, without putting his neighbours to the charge, perplexity, and uncertainty of lawsuits. He always speaks the thing he means, which he is never afraid nor ashamed to do, because he knows he always means well; therefore is never obliged to blush and feel the confusion of finding himself detected in the meanness of a falsehood. He never contrives ill against his neighbour, and therefore is never seen with a lowering suspicious aspect. A mixture of innocence and wisdom makes him ever seriously cheerful. His generous hospitality to strangers, according to his ability, his goodness, his charity, his courage in the cause of the oppressed, his fidelity in friend-

ship, his humility, his honesty and sincerity, his moderation and his loyalty, his piety, his temperance, his love to mankind, his magnanimity, his public spiritedness, in short, his commensurate virtue, make him justly deserve to be esteemed the glory of his country.

The leaves do as they please
Just as their thoughts and open are their tempers,
Freely without disguise they love and hate;
Still are they found in the fair of day,
And heaven and men are judges of their actions.

Who would not rather choose, if I were in choice, to merit the above character, than be the richest, the most learned, or the most powerful in the province without it?

Almost every one has a strong natural desire of being valued and esteemed by the rest of his species; but I am concerned and grieved to see how few fall into the right and only method of becoming so. That laudable ambition is too commonly misapplied, and often ill applied. Some, themselves considerable, pursue learning; grasp wealth; some aim at being thought witty; and others are only careful to make the most of a handsome person: but what is wit, or wealth, or form, or learning, when compared with virtue! It is true, we love the handsome, we applaud the learned, and we fear the rich and powerful; but we even worship and adore the virtuous. Nor is it strange; since men of virtue are so rare, they are rare to be found.

If we were as industrious to become good, as to make ourselves great, we should become really great by being good, and the number of valuable men would be much increased; but it is a great mistake to think of being great without goodness; and I pronounce it certain, that there yet a truly great man, that was not at the same time truly virtuous.

O Critico! thou philosopher! thou cunning statesman! thou crafty, huff from being wise. When wilt thou be esteemed, regarded, and beloved like Cato? When wilt thou, thy creatures, with that unfeigned respect, and good will, that all have for him? Wilt thou understand, that the cringing, mean, submissive deportment of thy dependants, is (like the worship paid by Indians to the devil) rather through fear of the harm thou mayest do them, than out of gratitude? The favours they have received from thee? Thou wholly void of virtue; many good things in thee; and many good actions reported of thee. Advised by thy friend: neglect those musty authors; let them vered with dust, and moulder on their proper shelves; and do thou apply thyself to a study more profitable, the knowledge of mankind and of thyself.

This is to give notice, Busy-Body

strictly forbids all persons, from this time forward, of what age, sex, rank, quality, degree, or denomination, soever, on any pretence, to inquire who is the author of this paper, on pain of his displeasure (his own near and dear relations only excepted.)

It is to be observed, that if any had characters happen to be drawn in the course of these papers, they mean no particular person, if they are not particularly applied.

Likewise, that the author is no party man, but a general meddler.

N. R. Cretico lives in a neighbouring pro-

lowing letter left for me at the printer's, is one of the first I have received, which I regard the more that it comes from one of the fair sex, and because I have myself often times suffered under the grievance therein complained of.

To the Busy-Body.

SIR,—You having yourself for a censorious morose, (as I think you call it,) which is said to mean a reformer of manners, I know no person more proper to be applied to for redress in all the grievances we suffer from want of manners in some people. You must know I am a single woman, and keep a shop in this town for a livelihood. There is a certain neighbour of mine, who is really agreeable company enough, with whom I have an intimacy of some time standing; but of late she has her visits so exceedingly often, and stays so long every visit, that I am tired out of all patience. I have no more of time to all myself; you seem to be a wise man, and must needs be sensible, that every person has little secrets and privacies, that are not proper to be exposed even to the nearest friend. Now I cannot the least thing in the world, but she must know about it; and it is a wonder I have found an opportunity to write you this letter. My misfortune is, that I respect her very well, and know not how to disoblige her so much as to tell her I should be glad to have less of her company; for if I should once hint such a thing, I am afraid she would resent it so as never to darken my door again.—But, alas, sir, I have not yet told you half my affliction. She has two children that are just big enough to run about and do pretty mischief: these are continually along with mamma, either in my room or shop, if I have so many customers as people with me about business. Sometimes they pull the goods off my low shelves down to the ground, perhaps where some of them have just been making water. My mother takes up the stuff and cries—"Oh! thou little wicked, mischievous rogue! but, however, it has done no great damage; it is only wet a little;" and so puts it upon the shelf again. Sometimes they get my cask of nails, the better, and divert themselves, to my great vexation, with mixing my tenpenny eight-penny and shilling together. I endeavour to conceal my uneasiness as much as possible, and, with a grave look, to go on sorting them. I cry—"Don't thee trouble thyself, neighbour; let thee play a little; I'll put all to rights before I go." But things are never so put to rights but that I find a great deal of work to do after they are gone. Thus, sir, I have all the trouble and pesterment of children without the pleasure of calling them my own; and they are now so used to being here that they will be content no where else. She would have been so kind as to have mode-

No. IV.

Feb. 23. 1763.

In my paper, I invited the learned and the ingenious to join with me in this undertaking; and I now repeat that invitation. I would have such gentlemen, take this opportunity (by trying their talent in writing) of diverting themselves and friends, and improving the taste of the town. And because I would encourage all wit of our own growth and produce, I hereby promise, that whoever send me a little essay on some moral or other subject, that is fit for public view in this manner, (not basely borrowed from any author,) I will receive it with candour, and take care to place it to the best advantage. It will be hard if we cannot muster up in the whole country a sufficient stock of sense to supply the Busy-Body at least for a twelvemonth. For my own part, I have already professed, that I have the good of my country wholly at heart in this design, without the least sinister view; my chief purpose, being to inculcate the noble principles of virtue, and depreciate vice of every kind. I know the mob hate instruction, and the generality would never read beyond the first line of my lectures, if they were actually with nothing wholesome precepts and advice, I must therefore sometimes humour them in their own way. There are a set of great names in the province, who are the common objects of popular dislike. If I can now and then my reluctance, and prevail with myself to satirize a little, of these gentlemen, the expectation of meeting such a gratification will induce many to read me through, who would otherwise proceed immediately to the foreign news. I am very well of the greatest men among us have a sincere love for their country, notwithstanding its ingratitude, and the insinuations of the envious and malicious to the contrary, so I doubt not but they will cheerfully tolerate me in the liberty I design to take for the end above mentioned.

yet I have but few correspondents, though they begin now to increase. The fol-

rated her visits to ten times a day, and staid but half an hour at a time, I should have been contented, and I believe never have given you this trouble; but this very morning they have so tormented me that I could bear no longer; for while the mother was asking me twenty impertinent questions, the youngest got to my nails, and, with great delight, rattled them by handfuls all over the floor; and the other at the same time made such a terrible din upon [redacted] with a hammer, [redacted] I [redacted] distracted. I was just then about to [redacted] myself a new suit of pinnars, but in the [redacted] and confusion I cut it quite out of all manner of shape, and [redacted] utterly spoiled a piece of the first maulin. Pray, sir, tell me, what shall I do? and talk against such unreasonable visitings in your next paper; though I would not have her affronted with me for a great deal, for I sincerely love her and her children, [redacted] well I think as a neighbour can, and she buys a great many things in a year at my shop.— But I would beg her to consider she uses me unmercifully, though I believe it [redacted] only for want of thought. But I have twenty things more to tell you besides all this: there is a handsome gentleman that has a mind (I don't question) to make love [redacted] me; but he can't get the opportunity to—O dear! here she comes again!—I must conclude.—Yours, &c.

PATIENCE.

Indeed it is well enough, as it happens, that she [redacted] come [redacted] shorten this complaint, which I think is full long enough already, and probably would otherwise have been as long again. However I confess I cannot help pitying my correspondent's case, and in her behalf exhort the visitor to remember and consider the words of the wise man; "Withdraw thy foot from the house of thy neighbour, lest he grow weary of thee and so hate thee." It is, I believe, a nice thing, and very difficult, to regulate [redacted] visits in such a manner [redacted] never to give offence by coming too seldom, [redacted] too often, [redacted] departing too abruptly, [redacted] staying too long. However, [redacted] my opinion, it is safest for most people, in a general way, who [redacted] unwilling [redacted] disoblige, [redacted] visit seldom and tarry but a little while [redacted] a place; notwithstanding pressing invitations, which are many times insincere. And though more of your company should [redacted] really desired; yet in this case [redacted] much reserve [redacted] is a fault more easily excused [redacted] the contrary.

[redacted] are subject to various inconveniences merely [redacted] rough lack of a [redacted] share of company [redacted] which [redacted] a quality very necessary in the common occurrences of life, [redacted] well as [redacted] battle. How many importunities do we daily [redacted] with great uneasiness, [redacted] [redacted] have not courage enough to discover our dislikes? And why may not a man use the [redacted] freedom of telling his friends, [redacted] their long [redacted] incommode

him. On this occasion it may be entertaining to some of my readers, if I acquaint them with the Turkish manner of entertaining visitors, which I have from an author of unquestionable veracity; who assures us, that even the Turks are not so ignorant of civility and the arts of endearment, but that they can practice them with as much exactness as any other nation, whenever they have a mind to show themselves obliging.

"When you visit a person of quality," [redacted] he, "and have talked over your business, or the compliments, or whatever concern brought you thither, he makes a sign to have things served in for the entertainment, which is, generally, a little sweetmeats, a cup of a sherbet, and another of coffee; all which are immediately brought in by the servants, and tendered to all the guests in order, with the greatest care and awfulness imaginable. At last comes the finishing part of the [redacted] meal, which is perfuming the beards of the company; a ceremony which is performed in this manner: they have for this purpose a small chaffing dish, covered with a lid full of holes, and fixed upon a handsome plate. In this they put some fresh coals, and upon them a piece of aloes wood, and shutting it up, the [redacted] immediately [redacted] with a grateful odour through the holes of the cover. The smoke is held under every one's chin, and offered as it were a sacrifice to his beard. [redacted] brisly idol [redacted] the reverence [redacted] to it, and so greedily takes in and incorporates the gummy steam, that it retains the [redacted] of it, and may serve for a nosegay a good while after.

"The ceremony may perhaps seem ridiculous at first, but it passes among the Turks as a high gratification. And I will say this in vindication, that [redacted] sign is very wise and useful, for it is understood [redacted] give a civil dismission to the visitors, intimating to them, that the master of the house has business to do, or some other avocation, that permits them to go away [redacted] soon [redacted] they please; [redacted] the [redacted] after [redacted] ceremony the better. By this [redacted] you may [redacted] any time, without offence, deliver yourself from being [redacted] from your affairs by tedious and unseasonable visits; and from being constrained to use [redacted] piece of hypocrisy, so common in the world, of pressing [redacted] to stay longer with you, whom perhaps, in your heart, you wish a great way off for having troubled you [redacted] long already."

Thus [redacted] my author. For my own part, I have taken such a fancy [redacted] this Turkish custom, that for the future I shall put something like [redacted] in practice. I have provided a bottle [redacted] right French brandy [redacted] the [redacted] [redacted] true water for the ladies. After I have treated with a dram, and presented a pinch of my best snuff, I expect [redacted] company will retire.

and leave me to pursue my studies for the good of the public

Advertisement.

I give notice, that I am actually now compiling, and design to publish in a short time, the true history of the rise, growth, and progress of the renowned Tiff-Club. All persons who are acquainted with any facts, circumstances, characters, transactions, &c. which will be requisite to the perfecting and embellishment of the said work, are desired to communicate the same to the author, and direct their letters to be left with the printer hereof.

The letter signed *Al-be-something*, came to hand.

No. V.

Ven. O patrum sapient, quos vivere non est,
Compositum, postquam concurrebat — *Forster*.

THIS paper being designed for a terror to evil doers, as well as a praise to them that do well, I am filled up with secret joy to find, that my undertaking is approved, and encouraged, by the just and good, and that few are against me those who have reason to fear me.

There are little follies in the behaviour of men, which their best friends are too tender to acquaint them with; there are little vices and little crimes, which the law has no regard to or remedy for: there are likewise great pieces of villany sometimes so craftily accomplished, and so circumspectly guarded, that the law can take no hold of the offender. All these things, and things of this nature, come within my province as Censor, and I am determined not to be negligent of the trust I have reposed in myself, but resolve to execute my office diligently and faithfully.

All the world may judge without how much humanity as well as justice I shall behave in this office: and that even my enemies may be convinced I take no delight to rake into the dunghill lives of vicious men; and to the end that certain persons may be a little eased of their fears, and relieved from the terrible palpitations they have lately felt and suffered, and do still suffer; I hereby graciously pass a general act of oblivion, for all offences, crimes, and misdemeanours, of what kind soever, committed from the beginning of the year 1681, until the day of the date of my first paper, and promise only to concern myself with such as have been since and shall hereafter be committed. I shall take no notice of (heretofore) raised a fortune by fraud and oppression, who by deceit and hypocrisy; what woman has been false to her good husband's bed, what man by barbarous usage or neglect, broke the heart of a faithful wife; and wasted his health and substance in debauchery; what base wretch has betrayed his friend, and sold his honesty

for gold, nor what base wretch corrupted him, and then bought the bargain: all this, and much more of the same kind, I shall forget, and pass over in silence; but then it is to be observed, that I expect and require a sudden and general amendment.

These threatenings of mine, I hope, will have a good effect, and, if regarded, may prevent abundance of folly and wickedness in others, and at the same time save me abundance of trouble: and that people may not flatter themselves with the hopes of concealing their loose misdemeanours from my knowledge, and in that view persist in evil doing, I must acquaint them, that I have lately entered into an intimacy with the extraordinary person who some time ago wrote me the following letter; and who, having a wonderful faculty, that enabled him to be the most secret spy, is capable of giving me great intelligence in my designed work of reformation.

No. VI.

"*MR. BURY-BURY*,—I rejoice, in the opportunity you have given me to be serviceable to you, and by your means, to this province; you must know, that such have been the circumstances of my life, and such were the marvellous occurrences of my birth, that I have not only a faculty of discovering the actions of persons that are absent or asleep, but even of the devil himself in many of his secret workings, in the various shapes, habits, and names of men and women; and having travelled and conversed much, and met with but a very few of the same perceptions and qualifications, I can recommend myself to you as the most useful man you can correspond with. My father's father's father (for we had no grand-father in our family) was the same John Bunyan that writ the memorable book, *The Pilgrim's Progress*, who had, in some degree, a natural faculty of second sight. This faculty (how derived in him our family memoirs are not very clear) was enjoyed by all his descendants, but not by equal talents. It was very dim in several of my first cousins, and probably had been nearly extinct in our particular branch, had not my father been a traveller. He lived in his youthful days in New England. There he married, and there was born my elder brother, who had so much of this faculty, as to discover witches in some of our occult performances. My parents transporting themselves to Great Britain, my second brother's father in our kingdom. He shared but a small portion of this virtue, being only able to discern transactions about the time of and after their happening. My good father, who delighted in the *Pilgrim's Progress*, and mountainous places, took shipping with his wife for Scotland, and inhabit-

ed the Highlands, where myself was born, and whether the soil, climate, or astral influences, of which are preferred divers prognostics, restored our ancestor's natural faculty of second sight in a greater lustre to me, than it had shined in through several generations, I will not here discuss. But so it is, that I am possessed largely of it, and design, if you encourage the proposal, to take this opportunity of doing good with it, which I question not will be accepted of in a grateful way by many of your honest readers, though the discovery of my extraction hodes me no deference from your great scholars and modern philosophers. This my father was long aware of, and lest the name alone should hurt the fortunes of his children, he in his shiftings from my country to another, changed it.

"Sir, I have only thus far to say, how I may be useful to you, and as a reason for my not making myself more known in the world: by virtue of this great gift of nature, second-sightedness, I continually see numbers of men, women, children, of ranks, and what they are doing, while I am sitting in my closet; which is too great a burden for the mind, and makes me also conceit, even against reason, that all this host of people can see me observe me, which strongly inclines me to solitude, and an obscure living; and on the other hand, it will be to me to disburden my thoughts and observations in the way proposed to you, by, sir, your friend and servant."

I conceal my correspondent's name, my rare for his life and safety, and cannot but approve his prudence in choosing to live obscurely. I remember the fate of my poor monkey: an ill-natured trick of grinning and chattering at every thing he saw in petticoats: my ignorant country neighbours got a notion that pug snarled by instinct every female who had her virginity. This was no generally believed, he was condemned to death; by whom I could never learn, he was assassinated the night, barbarously stabbed and mangled in a thousand places, left hanging dead of my gate posts, where I found him the next morning.

The Censor observing the rich of scribbling begins to spread exceedingly, and being carefully tender of the reputation of his country in point of wit, and good sense, has determined to take all manner of writings, in verse or prose, that pretend to either, under his immediate cognizance; and accordingly hereby prohibits publishing any such the future and they have first passed examination, and received imprimatur: for demands as a only six pence per sheet.

N. B. nevertheless permits to be published, satirical remarks on the Busy-Body, the prohibition notwithstanding, without examination requiring the

fees; which indulgence the small wits, in and about the city, are advised gratefully to accept and acknowledge.

The gentleman who calls himself Sirronus, is directed, on receipt of this, to burn his great book of crudities.

P. S. In compassion to that young man on account of the great pains he has taken, in consideration of the character I have just received of him, that he is really good natured, and on condition he allows it to no foreigner, or stranger of sense, I have thought to retrieve his said great book of crudities from the flames till further order.

NO. VII.

My sagacity.

I was resolved when I first commenced this design, on no account to enter into a public dispute with any man; I judged I would be equally unpleasant to me, my readers, to my paper filled with tedious wranglings, answers, replies, &c. is a way of writing I am endless, and at the same time seldom contains any thing that is diffusing or entertaining. Yet, when such a considerable man as Mr. finds himself warmly concerned to accuse and condemn me, as he has done in Keimer's Instructor, I forbear endeavouring to say something of my own defence, from one of the worst characters that could be given by a man of worth. But as I have many things of more consequence to offer to the public, I declare that I never will, after this time, take notice of any accusations not better supported with truth and reason; much less may every little scribbler, shall attack me, expect an answer from the Busy-Body.

The sum of the charge delivered against me, either directly or indirectly, in the said paper, is this: to mention the first mighty sentence concerning vanity, ill nature, and the shrewd that I without charity, and therefore can have no pretence religion, I am represented as guilty of defamation and scandal, the odiousness of which is apparent to every good man; and the practice of it opposite to Christianity, morality, common justice, and in some cases so far below three, as to be inhuman: blaster of reputations; as attempting by a pretence, to screen myself from the imputation of malice and prejudice: as using a weapon which the wise and better part of mankind abhorrence; as giving treatment which the wiser and better part of mankind dislike, on the same principles and for the same reasons, as they do assassination, &c. and all this is inferred and concluded from a character I have in my No. III.

In order to examine the justice of this heavy charge, let us recur to that cha-

rector. And here we may be surprised to find what a trifle has been this mighty clamour and complaint, this grievous accusation! The worst thing said of the person, in what is called my gross description, (be he who he will to whom my accuser has applied the character of Critico) is, that he is a sour philosopher, crafty, but not wise. Few human characters can be drawn which will not fit somebody in so large a country as this; but one would think, supposing I meant Critico a real person, I had sufficiently manifested my impartiality, when I said in that very paragraph, Critico is not without virtue; that there are many good things in him, and many good actions reported of him; which must be allowed in all much overbalance in his favour those worst words, sour-tempered and cunning. Nay, my very enemy and accuser must have been sensible of this, when he freely acknowledges, that he has been seriously considering, and cannot yet determine which he would choose to be, the Cato or Critico of that paper; since my Cato is one of the best characters. Thus much in my own vindication. As to the only reason there given why I ought not to continue drawing characters, viz. Why should any man's picture be published that he never sat for, or his own good name taken from him any more than his money or possessions, the arbitrary of another? &c. I have but this to answer: the money or possessions I presume are nothing to the purpose; since no man can claim a right to either those as a good name, if he has acted so as to forfeit them. And are not the public the only judges what share of reputation they may think proper to allow to any man? Supposing I was capable, and had an inclination, to draw all the good and bad characters in America, why should a good man be offended with me for drawing good characters! And if I draw ill ones, can they fit any other but those that deserve them? And ought any but such be incensed that they have their desert? I have as great an aversion and abhorrence for defamation and scandal as any man, and would with the utmost care avoid being guilty of such base things: besides, I am very sensible and certain, that if I should make use of this paper to defame any person, my reputation would be sooner hurt than his; and the Busy-Body would quickly become detestable; because, in such a case, as is justly observed, the pleasure arising from a tale of woe, which so soon dies away in generous and honest minds, and is followed with a secret grief, to see their neighbours calumniated. If I myself was actually the worst man in the province, and any one should draw my true character, would it not be ridiculous in me to say, he had defamed and scandalized me, unless he had acted in a matter of truth? If any thing is meant by asking, why any man's

picture should be published which I never sat for, it must be, that we should give no character without the owner's consent. If I discern the wolf disguised in harmless wool, and contriving the destruction of my neighbour's sheep, must I have permission, before I am allowed to discover and prevent him? If I know a man to be a designing knave, must I consent to bid my neighbours beware of him? If so, then by the same rule, supposing the Busy-Body had really merited all his enemy charged with, his consent ought likewise to have been obtained, before so terrible an accusation was published against him.

I shall conclude with observing, that in the last paragraph save one of the piece now examined, much ill nature and some good sense are expressed (as he expresses it.) The ill nature is in endeavouring to discover entire where I intended no such thing, but quite the reverse: the good sense is this, that drawing too good a character of any one is a refined manner of satire that may be as injurious to him as the contrary, by bringing on an examination that undresses the person. In the haste of doing it, he may happen to be stript of what he really owns and deserves. As I am Censor, I might punish the first, but I forgive it. Yet I will not leave the offender unrewarded; but my adversary, that in consideration of the merit of those four lines, I am to be injuring him in that refined manner.

I thank my neighbour P—W— for his kind letter.

The lions complained of shall be muzzled.

No. VIII.

March 27, 1736

Quid non mortalium pectora cogit
Aethiopia simul—Perga.

ONE of the greatest pleasures an author can have, is certainly the hearing his works applauded. The hiding from the names, while we publish our thoughts, is so absolutely necessary to our self gratification, that I take my well wishers will congratulate me on my escape from many diligent but fruitless inquiries that of late have been made after me. Every man will own that an author as such, ought to be hid by the merit of his productions only; but pride, party, and prejudice, at this time run so very high, that experience shows we form our notions of a piece by the character of the author. May there are some very humble politicians in and about the city who will ask on which the writer is, before they presume to give their opinion of the thing wrote. This ungenerous way of proceeding I was full aware of before I published my first speculation; and therefore concealed the name. I appeal

the more generous part of the world, if I have, since I appeared in the character of the Busy-Body, given an [] of my siding with [] party more than another, [] the unhappy divisions of my country; and I have above all this satisfaction in myself, that neither affection, aversion, or interest have biased me to [] any partiality towards any man, or set of men; but whatsoever I find nonsensical, ridiculous, or immorally dishonest, I have and shall continue openly to attack with the freedom of an honest man and a lover of my country.

I profess I can hardly contain myself, or preserve the gravity and dignity that should [] censorial office, when I hear the odd and unaccountable expositions that are put upon some of my works, through the malicious ignorance of [] vain pride of more than ordinary penetration in others; [] instance of which many of [] readers are acquainted with. A certain gentleman has taken a great deal of pains to write a key to the letter in my No. IV., wherein he has ingeniously converted a gentle satire upon tedious and impertinent visitants, into a libel on some of the Government. This I mention only as a specimen of the taste of the gentleman; I am forsooth bound to please in my speculations, not that I suppose my impartiality will ever be called in question on [] Injustice of this nature I could complain of in many instances; but I am at present diverted by the reception of a letter, which though it regards me only in [] private capacity, [] an adept, yet I venture to publish [] for the entertainment of my readers.

To Censor Morum, Esq. Busy-Body general of the Province of Pennsylvania, and the counties of Newcastle, Kent, and Sussex upon Delaware.

"HONOURABLE SIR,—I judge by your lucubrations, that you are not only a lover of truth and equity, but a man of part and learning, and a master of science; as such I honour you. Know then, most profound sir, that I have, from my youth up, been a very indefatigable student in, [] admirer of, that divine science, astrology. I have read [] Scot, Albertus Magnus, and Cornelius Agrippa above three hundred times; and was in hopes, by my knowledge and industry, to gain enough to have recompensed me for my money expended, and time lost in the pursuit of this learning. You cannot be ignorant, sir, (for your intimate second-sighted correspondent knows all things,) that there are large sums of money hidden under ground [] divers places about this town, and in many parts of the [] country; but alas, sir, notwithstanding I have [] all the means laid down in the immortal authors before mentioned, and when they [] ed, [] ingenious Mr. P—d—l, with his

mercurial wand and magnet, I have still failed in my purpose; this, therefore, I send, to propose and desire an acquaintance with you, and I do not doubt, notwithstanding my repeated ill fortune, but we may be exceedingly serviceable to each other in our discoveries; and that if we use our united endeavours, the time will come when the Busy-Body, [] second-sighted correspondent, and your very honourable servant, will be three of the richest [] in the province: [] then, sir, what may [] not do! [] the wise [] sufficient.

I conclude, [] all [] respect, yours [] Urania's votary,

TITAN PLEIADS.

In [] evening [] I received [] letter, [] made [] visit [] my second-sighted friend, and communicated [] my proposal. When he had read it, he assured me that, to his certain knowledge, there [] [] thus time so much as one ounce of gold or silver hid under ground in any part of the province; for that the late and present scarcity of money had obliged those who were living, and knew where they had formerly hid any, to take it up and use it in their own necessary affairs; and as to all the rest, which [] buried by pirates [] others in [] times, who [] like to [] for it, he [] himself long since dug it all up, and applied it to charitable []; and this he [] red [] to publish for the general good. For as he acquainted [] there are amongst us great [] bers of honest artificers and labouring people, who, [] with a vain hope of growing suddenly rich, neglect their business almost to the ruining of themselves [] families, and voluntarily endure abundance of fatigue in a fruitless search after imaginary hidden treasure. They wander through the woods and bushes by day, to discover the marks and signs; [] midnight they repair to those hopeful spots with spades and pickaxes; full of expectation they labour violently, trembling at [] some time in every joint through fear of certain malicious demons, who are said to haunt and guard the places. At length a mighty hole is dug, and perhaps several cart loads of earth thrown out; but alas, [] keg or iron pot is found: no seaman's chest ornamented with Spanish pistols or weighty pieces of eight! Then they conclude that, through some mistake in the procedure, some rash word spoke, or some rule of art neglected, the guardian spirit had power to sink it deeper into the earth, and convey it [] of his reach. Yet when a man is once thus infatuated, he is so far from being discouraged by ill success, that he is rather animated to double his industry, and will try again and again, in a hundred different places, [] hopes at last of meeting with some lucky hit, that shall [] once sufficiently reward them for all their expense of time and labour.

This odd humour of digging for money,

through a belief that much has been hid by pirates [redacted] frequently the river, has for several years been mighty prevalent among us; inasmuch that you can hardly walk half a mile out of the town on any side, without observing several pits dug with that design, and perhaps some lately opened. Men otherwise of very good sense have been drawn into this practice through an overrunning desire of hidden wealth, and an easy credulity of what they so earnestly wished might be true. While the rational and almost certain methods of acquiring riches by industry and frugality are neglected or forgotten. There seems to be some peculiar charm in the conceit of finding money, [redacted] if the [redacted] of Schuylkill were so much mixed with [redacted] grains of gold, that a man might in a day's time, with care and application, get together the value of half a crown, I make no question [redacted] we should find several people employed there, that [redacted] with ease [redacted] five shillings a day in their proper trades.

Many are the idle stories told of the private success of some people, by which others are encouraged to proceed; and the astrologers, with whom the country [redacted] at this time, are either in the belief of these things themselves, [redacted] find their advantage in persuading others to believe them; for they are often consulted about the critical times for digging, the methods of laying the spirit, and [redacted] like whimsies, which [redacted] them very necessary [redacted] and very much caressed by, the poor deluded money hunters.

There is certainly something very bewitching in the pursuit after mines of gold and silver, and other valuable metals, and many have been ruined by it. [redacted] sea captain of my acquaintance used to [redacted] the English for [redacted] rying Spain their mines of silver, and [redacted] much despising [redacted] overlooking the advantages of their own industry and manufactures. "For my part," says he, "I esteem the Banks of Newfoundland to be a more valuable possession than the mountains of Potosi; and when I have been there on the fishing account, I have looked upon every cod pulled up into the vessel as a certain quantity of silver ore, which required only carrying to the next Spanish port to be coined into pieces of eight; [redacted] mention [redacted] national profit of sitting out and employing such a number of ships and seamen." Let honest Peter Buckram, who has long without success been a searcher after hidden money, reflect on this, and [redacted] reclaimed from this unaccountable folly. [redacted] consider that every stitch he takes [redacted] he is on his shop-board in picking up a part of a grain of gold, that will in a few days time amount to a pistole; and let Faber think the same of every nail he drives, or every stroke with his plane; such thoughts may make them industrious, and of consequence in time they may be

wealthy. But how absurd is [redacted] to neglect a certain profit for such a ridiculous whimsey; to spend whole days at the George tavern in company with an idle pretender to astrology, contriving schemes to discover what was never hidden, and forgetting how carelessly by [redacted] is managed at home in their absence: to leave their wives and a warm bed at midnight (no matter if it rain, hail, snow, or blow a hurricane, provided that be the critical hour) and fatigue themselves with the violent exercise of digging for what they shall never find, and perhaps getting a cold that [redacted] cost their lives, or at least disordering themselves so as to be fit for no business besides for some days after. Surely this [redacted] [redacted] than the most egregious folly and madness.

I shall conclude with the words of my discreet friend Agricola, of Chester county, when he gave his son a good plantation: "My son," says he, "I give thee now a valuable parcel of land; I assure thee I have found a considerable quantity of gold by digging there, thee mayest do the same: but thee must carefully observe this, [redacted] dig more [redacted] plough deep."

No. IX.

Nov. 1773

Ms. Bow-Bow.—Pray let the prettiest creature in this place know, by publishing this, that if it [redacted] for her affection, she would be absolutely irresistible.

BOB BRIEF.

Mr. Brief appears [redacted] have communicated his laconic letter to others, at the [redacted] time that it was presented here; it has produced no less than six other communications, [redacted] in the order they [redacted] received.

[redacted] Bow-Bow,—I [redacted] conceive who Mr. Brief means, by [redacted] prettiest creature in this place; but I can assure either him or her, that she who is truly so, has no affection at all.

DIANA.

Sex.—As a correspondent of yours has thought fit to communicate to me his note to you; before it [redacted] be published, I have looked [redacted] my glass repeatedly, a thousand times, perhaps, in a day—and if it was not [redacted] the charge of affection, I might, without the charge of partiality, believe myself particularly pointed at.

ROSELLA.

[redacted] Bow-Bow,—I [redacted] own that several have told me, I am [redacted] prettiest [redacted] in this place, but I believe I should not be [redacted] with affection, if I could have thought as well of them as they do of themselves.

[redacted]

Sex.—Your sex calls me pretty; my own, affected: is it from candour in the one, or envy in the other? [redacted] ABELLA.

BUSY-BODY.—They that call me affected are greatly mistaken, for I don't know that I ever refused to kiss any body but a fool.—Mr. [] will [] and []

KIT CANDOUR.

FRIEND BUSY-BODY.—I [] [] [] displeased [] being accused of affectation; thou knowest the [] people call decency of behaviour [] simplicity of manners by that [] Thy friend, [] [] DAISY.

No. X.

Veritas fides clarior.

A FRIEND of mine was [] other day chaffering [] trifles [] a shopkeepers, and after [] few words they agreed on a price. At the tying up of [] parcels he had purchased, the mistress of the shop told him that, people [] growing very hard, for she actually lost by every thing [] sold. How then is it possible, said my friend, that you can keep on your business. Indeed, sir, answered she, I [] of necessity shut my doors, had I not a very great trade. The [] said my friend (with a sneer) is admirable.

There are a great many retailers who falsely imagine, that being *historical* (the modern phrase for lying) is much for their advantage; and [] of [] have a saying, that it is a *pity lying is a sin, it is so useful in trade*; though if they would examine into the reason why [] number of shopkeepers raise considerable [] while others who have set [] with better fortunes have become bankrupts, they would find, that the former made up with truth, diligence, and probity, what they [] deficient of in stock; while the latter have been guilty of imposing [] such customers as they found had [] skill in the quality of their goods.

The former character raises a credit which supplies [] want of fortune, and their fair dealing brings them customers; whereas none will return [] to buy of him by whom he has been once imposed []. If people in trade would judge rightly, we might buy blindfolded and they would [] themselves, and [] the unpleasantness of *haggling*.

Though there [] numbers of shopkeepers who [] [] vice of lying, and whose word may very safely be relied [] yet there [] too [] who [] endeavour, and backing their *assurances* with *assurances*, pawn their salvation to raise their prices.

As example works [] than precept, and my sole view being the good [] interest of my countrymen, whom I could wish to see without any vice or folly, I shall offer an [] ample of the veneration bestowed on truth and [] of [] among the ancients.

Augustus triumphing [] Mark Antony

and Cleopatra, among other captives who accompanied them, brought to Rome a priest of [] sixty years old; the [] being informed that this man had never been detected in a falsehood, and [] believed [] to have told a lie, not only restored him [] liberty, but made him a high priest, and caused a [] to be erected to his honour. The priest thus honoured was an Egyptian, and an enemy to Rome, [] his virtue removed all obstacles.

Pamphilus was a Roman citizen whose body upon his death [] forbidden sepulture, his [] confiscated, [] house razed, and his wife and children banished the Roman territories wholly for [] having been [] notorious and inveterate liar.

Could there be greater demonstrations of respect for truth than these of the Romans, who elevated [] the greatest honours, and exposed the family of a citizen to [] greatest contumely?

There can be no [] for lying, neither is there any thing equally despicable and dangerous as a liar. [] being safe who [] ciates with him; for *he who will lie, will swear to it*, says the proverb, and such [] one may endanger my life, turn my family out of doors, and ruin my reputation, whenever he [] find it his interest; and if a man will lie [] swear to it in his shop to obtain a trifle, why [] we doubt his doing so when he may hope to make a fortune by his perjury? The crime is in itself so mean, that to call [] man a liar is esteemed every where an affront not to be forgiven.

If any have lenity enough to allow the dealers an excuse for this bad practice, I believe they will allow [] for the gentleman who is addicted to this vice; and [] look upon him with contempt. That the world does so is visible by the derision with which he [] is treated whenever it is mentioned.

The philosopher Epicurus gave the Rhodians this description of Truth.—She is the companion of the gods, the joy of heaven, the light of the earth, the pedestal of justice, [] the basis of good policy.

Eschines told the same people, that truth [] [] virtue, without which force [] enfeebled, justice corrupted; humility became dissimulation, patience intolerable, chastity a dissembler, liberty lost, and pity superfluous.

Pharmanes the philosopher told the Romans Truth was the centre on which all things rested: [] chart to sail by, [] remedy for all evils, and a light [] the whole world.

Anaxarchus, speaking of Truth, said, it [] [] incapable of sickness, life [] subject [] death, an elixir that healeth all, a [] to be obscured, [] moon without eclipse, an herb which [] withereth, [] gate that [] never closed, and [] path which [] fatigues the traveller.

if we are blind to the beauties of truth, it is astonishing that we should not open our eyes to the inconvenience of falsity. A man given to rancour must be always on his guard for fear of contradicting and exposing himself to derision; he must be careful to avoid the character, though it is impossible with the utmost circumspection to travel long on this route without detection, and shame and confusion follow. he who is a votary of truth hesitates for an hour has never to rack his invention he is equal quadrate with the beginning of his story, nor obliged to burden his memory with minute circumstances, truth speaks easily what it recollects, repeats openly and frequently without varying facts, which liars cannot always do, though gifted with a good memory.

No. XI.

As the nail is driven fast between the joinings of the stones, so doth our rick close also between buying and selling.—*Specyphs.*

We have received the following letters, the first from a shopkeeper, and the other a merchant.

To Busy-Body.

Sir,—I am a shopkeeper in this city, and suppose I am the person whom some remarks have been aimed in a paper. It is an easy matter for gentlemen that can write, to say a great deal upon any subject, and censure the faults of which they are guilty as other people. I cannot help thinking that those remarks are written with much partiality, and give a very unfair representation of things. Shopkeepers are accused lying, as if they were the only persons culpable in that way, and without the notice being taken of the general practice of their customers. "I am sure it is very ordinary that price," says one, "I have bought much better at such a one's shop for money," says another, like disparaging expressions, are very common, so as to be almost worn threadbare; we have even the confidence we aver, they have bought cheaper of me, when I know the price they mention is less than the goods cost me. In short, they will not lie, to undervalue our goods, and make our demands appear extravagant. So that all of all the lying, properly belongs to the customers that come to buy, because the shopkeepers strain truth a little now and then, it is because they are forced to do so in their own defence. I hope you will do us justice in this affair, I remain, your friend and servant,

THOMAS HARRIS.

Busy-Body.—Some notice has been lately taken of a prevailing vice, very justly censured; that is the too common prac-

tice of lying by the shopkeepers in selling their goods; but the charge has been only half made; no notice is taken of their lying when they come to the stores to buy. I believe they think lying full as convenient in buying their goods as in selling them; and to my knowledge some of them are most egregiously guilty in this particular.—Yours,

MERCATOR.

XII.

Sir,—Being old and lame in my hands, and thereby incapable of assisting my fellow-citizens when their houses are on fire, I have thought it my duty to offer in return for the safety and aid I derive in common with others, to do what I can in the only way I am able; and I must beg my fellow-townsmen to take in good part, the following hints on the subject of fires.

In the first place, as an ounce of prevention is worth a pound of cure, as Poor says, I would advise every one to how they suffer living brands, or coals in a shovel, to be carried out of one room into another, or up or down stairs, unless in a covered warming pan, or some such close incombustible vessel; our houses are at present composed mostly of wooden materials, and sparks or flakes of fire may fall into chinks or corners where they may not inflame around them and so no appearance till midnight, when your stairs being in flames, you may be forced, I to leap out of a window and hazard my neck to avoid the alternative of being roasted.

And now we talk of prevention, where would be the damage if to the act for preventing fires, by the regulation of bake-houses and coopers' shops, a clause were added to regulate all other houses in the particular of too shallow hearths, and the reprehensible practice of namenting fire-places with wooden chimney pieces and mouldings, which being commonly made of heart-pine, and with turpentine, and always stands ready for a blaze, as soon as a live coal may come in contact with it.

Again, if chimneys were more frequently and more carefully cleaned, some fires might thereby be prevented; for I have known foul chimneys burn most furiously a few days after they had been swept, people in confidence of their being cleansed making large fires. Every body among us that pleases may undertake the business of chimney sweeping, but a chimney after being swept, and fully caused it to be swept, the owner is obliged to pay the fee, and the sweeper goes free. This is not right. Those who undertake the sweeping of chimneys, and employ assistants for that purpose, ought to be licensed by the authorities, and if any chimney

uzzes out within fifteen days after the sweeping, the fine should be paid by the sweeper for his default, no chimney fire if there be no harbour sparks.

•We have present got engines enough in the town (1734.) I question whether in many parts of the town water enough can be had to keep them going for half an hour together: it seems to me public pumps are wanting; but that I submit to better judgments.

As to our conduct in affair of extinguishing fires, though we do want hands or good will, yet we seem to want order and method, and I believe I cannot do better than imitate the example of a city in a neighbouring province. There is, as I am well informed, a club or society of active men belonging to each fire engine, business is to attend all with the engine, whenever they happen, to work it once a quarter of an hour, and see it kept in order. Some are assigned to handle the fire-hooks; others the axes, which are always kept with the engine and in good order; and for these services they are considered in abatement or exemption of taxes. In time of fire they are commanded by officers appointed according to forms prescribed by law, called *Firewards*, who are distinguished by an external mark, or a staff having the end a brass emblem of flame of about six inches long; being men selected for their prudence and invested with authority, they alone direct the opening and stripping of roofs by the axe men; the pulling down burning timbers by the hook men; the playing of the engines upon proper points and places; and the opening of lanes among the crowds who usually attend, &c.; they are empowered to require aid for the removing of goods out of houses on fire, or in danger of fire, and to appoint guards for securing those goods; disobedience to these officers is punished by a fine of 40 shillings or ten days imprisonment. These officers, with those belonging to the engine, at their quarterly meetings, discourse of fires; of the good management at others; thus communicating their experience they become wiser, and know as well command as in best manner upon emergency. Since the establishment of these regulations there does not appear to have occurred any extraordinary fire in that place, and I wish there never may be any here or there.

But they much before they made such regulations, and so must we; for Italians, *Englishmen feel but cannot* has pleased God, however, that in the fires we have hitherto, all bad circumstances have happened together, such as

dry season, high winds, narrow streets, and little or low water, which perhaps to make us more our minds; but if a fire with those circumstances should occur, which forbid afterwards learn to be careful.

One thought more and I have done. I would wish the tiles or slates could be brought into covering to buildings; the roofs not of so sharp a pitch as prevent walking on in safety.

Let others communicate their thoughts freely, and perhaps some good may grow of it. A. A.

No. XIII.

Nothing is more like a fool than a man Richard

It is an remark, that Vice always deavours to the appearance of Virtue; thus covetousness calls itself prudence, prodigality would be thought generous, and of others. This perhaps arises hence, that kind naturally and universally approve virtue in their hearts, and detest vice, therefore whenever through temptations they into vicious practices, they would if possible conceal it from themselves, well as from others, under name which does not belong to it.

But drunkenness is a very unfortunate vice; in this respect it bears no kind of similitude with any sort of virtue, from which it might possibly borrow a name; and therefore reduced to the wretched necessity of being expressed by and about phrases, and of perpetually varying those phrases as often as they to be well understood plainly signify that a man is drunk.

Though every man may possibly recollect a dozen at least of these expressions, used on such occasions, yet I think no man who has much frequented taverns could imagine the number of them be so great as it really is. It may therefore surprise us well as divert the sober reader, to have a sight of a new piece lately communicated, entitled,

The Drinker's Dictionary.

A.

He's added.
He's in a ira.
He's affected.
He's casting up his

He's biggy.
He's bewitched.
He's black and black.
He's bowzed.
He's boozey.
He's been at Barbadoes.
He's been watering the brook.
He's drunk as a wheelbarrow.
He's bother'd.

He's burdock'd.

He's bosky.

He's busky.

He's buzzy.

He sold a march in the brewer.

His head is full of bees.

He has been in the bibing plot.

He has more than he has bled.

He's bungy.

He been playing beggar-my-neighbour.

He's drunk a beggar.

He sees the beams.

He has kissed black Betty.

He's had a thump the Samson's jaw-bone.

He has been at with his brains.

He's bridgy.

C.

He been catching the cat.

He's cogniad.

He's capable.

He's cramped.

He's cherubimical.

He's cherry merry.

He's wamble croff.

He's crack'd.

He's half way to Concord.

He's canonized.

He taken a chirping glass.

He's got corns in his head.

He's got a cup much.

He's cognay.

He's cupay.

He has heated his copper.

He's a crocus.

He's catch'd.

He's capem.

He has been in the cellar.

He has been in the

He's in his cups.

He's above the clouds.

He's non compos.

He's cock'd.

He's curved.

He's cut.

He's chippered.

He's chickenny.

He has loaded his cart.

He's been too free with the creature.

cap. He's chopfallen.

He's candid.

He's disguised.

He's got a dish.

He has killed a dog.

He has taken his drops.

'Tis a dark day with him.

He's a dead man.

He's dipped a bill.

He's sees double.

He's disfigured.

He has seen the devil.

E.

He's a prince Eugene.

He's entered.

He has butted both eyes.

He is cock-eyed.

He has got the pole evil.

He has got a brass eye.

He has made an example.

He has ate a toad and a half for breakfast.

He's in his element.

F.

He's fishy.

He's fox'd.

He's fuddled.

He's soon fuddled.

He's frozen.

He'll have frogs for supper.

He's well in front.

He's getting forward in the world.

He owes no man money.

He fears no man.

He's crump fooled.

He has been to France.

He's flushed.

He has frozen his mouth.

He's fettered.

He has been to a funeral.

His flag is out.

He's furzled.

He's spoken with his friend.

He has been an Indian feast.

G.

He's glad.

He's gralable.

He's great-headed.

He's glazed.

He's generous.

He has boozed the gage.

He's as dizzy as a goose.

He has been before George.

He has got the gout.

He has got a kick in the guts.

He has been at Geneva.

He is globular.

He has got the glanders.

He's on the go.

He's a gone

He has been Robin Goodfellow.

H.

He's half and half.

He's half seas over.

He's hardy.

He's top heavy.

He has got by the head.

He makes head way.

He's hiddey.

He has got on his little hat.

He's hammerish.

He's loose in the hilt.

He knows way home.

He's with evil spirits.

He has taken Hippocrates' grand Elixir.

BAGATELLES—THE BUSYBODY.

L

He's intoxicated.
He's jolly.
He's jagged.
He's jumbled.
He's jocular.
He's juicy.
He's going to Jericho.
He's an indirect man.
He's going to Jamaica.
He's going to Jerusalem.

He's a king.
He's the king's English.
He's seen the French king.
The king is his cousin.
He has got kiked heels.
He has got knapt.
His kettle's up.
He'll be up.

L

He's in liquor.
He's lordly.
He's light.
He's lappy.
He's lumber.
He's lopsided.
He's adventures with his legs.
He's limber.
He's well to live.

M

He's two.
He's merry.
He's middling.
He's muddled.
He's moon-eyed.
He's maudlin.
He's mountainous.
He's maddy.
He's mellow.
He's seen a flock of moons.
He's raised his.

N

He's nuts.
He's nintopsical.
He's non compos.
He's got the night mare.
He has been nonsuited.
He's super nonsensical.
He's in of.
He's nonplus'd.

O

He's opium.
He's onion.
He's oxycrocin.
He's overcome.
He's of.
He's paymaster's books.

P

He's halfpenny.

Vol. II. . . .

42

He's as good conditioned as a puppy.
He's pigeon eyed.
He's puny.
He's priddy.
He's pushing on.
He's salt in his head.
He's been among the Philistines.
He's in prosperity.
He's friends with Philip.
He's contending with Pharaoh.
He has painted his nose.
He has wasted his punch.
He's learned politeness.
He's pudding-bag.
He has pumpkin.
He's of piety.

R

He's rocky.
He's raddled.
He's rich.
He's religious.
He's ragged.
He's raised.
He has lost his rudder.
He has been too far with Sir Richard.
He's like a rat in trouble.

S

He's scotch'd.
He's seafaring.
He's in the suds.
He's strong.
He's been in the sun.
He's as drunk as David's cow.
He's swampt.
His skin is full.
He's steady.
He's stiff.
He has burnt his shoulder.
He has got out his top-gallant sails.
He's the dog.
He's stuff as a ringbolt.
He's half seas.
The shoe pinches him.
He's staggerish.
It is light with him.
He carries too much sail.
He's out studding sails.
He's stewed.
He's stubbed.
He's soaked.
He's soft.
He has made free with Sir John Strawberry.

T

He's right before the wind, all sails out.
He's pawned.
He plays parrot.
He's made of shirt.
He's a blanket.
He's paying.

T

He's topped.
He's tongue-tied.
He's tanned.

He's tipsicum grave.
He's double tongued.
He's topsay turvey.
He's tipsy.
He's thawed.
He's trammull'd.
He's transported.
He's swallowed a tavern token.

V.

He's Virginia fame.
He has got the vapours.
He's pot valiant.
He's in love with varasy.

W.

He's wise.
He's a soul.
He has been the salt.
He has been search of eye water.
He's in the way to be weaned.
He's out of the way.
He's well soaked.
He's otherwise.
He can walk the line.
The wind is wet with him.
He carries his wagon.

The phrases of the Dictionary are not, like those of our art, borrowed from foreign dead languages; neither are they collected from the writings of the learned; but gathered from domestic sources; no doubt many more might be added. I was almost tempted to add a new under the letter B, to wit, *brutified*, but upon consideration I feared doing injustice to the brute creation, if I represented drunkenness as a beastly vice, since every one knows that the brutes are in general a sober sort of people.

This production (*The Washing Day*) has been generally ascribed to Dr. Franklin; though it has been also claimed for another gentleman. We have thought it fit to notice the circumstance, and merit will be as good an apology as can be offered, should be mistaken.

Singular custom among the Americans, entitled White-washing.

DEAR SIR,

My wish is to give you an account of the people of these states, but I am far from being qualified for that purpose, having yet little more than the cities of New York and Philadelphia. I have discovered but few national singularities among them. Their customs and manners are nearly the same with those of England, which they have long been used to copy. For, previous to the revolution, the Americans were from their infancy taught to look up to the English as patterns of perfection in all things.

I have observed, however, one custom, which, for aught I know, is peculiar to this country. An account of it will fill up the remainder of this sheet, and may afford you some amusement.

When a young couple is about to enter into the matrimonial state, a never-failing article in their marriage-treaty is, that the lady shall have and enjoy an unmolested exercise of the rights of *white-washing*, with all its ceremonials, privileges, and appurtenances. A young man would forego the most advantageous connexion, and even disappoint the wish of his heart, rather than resign an invaluable right. You would wonder what this privilege of *white-washing* is: I will endeavour to give you some idea of the ceremony, as I have seen it performed.

There is a season of the year in which a lady may claim her privilege, if she pleases; but the latter end of May is generally fixed upon for the purpose. The attentive husband may judge by the prognostics when the storm is nigh at hand. When the lady is unusually fretful, finds fault with the servants, is discontented with the children, and complains much of the filthiness of every thing about her—these are signs which ought to be neglected; yet they are not decisive, as they sometimes come on and go off again, without producing any farther effect. But if, when the husband rises in the morning, he should observe in the yard a wheelbarrow with a quantity of lime in it, he should see certain buckets with lime dissolved in water, there is then no time to be lost; he immediately looks up the apartment or closet where his papers or his private property is kept, and putting the key in his pocket, betakes himself to flight: for a husband, however beloved, becomes a perfect nuisance during the season of female rage; his authority is superseded, his mission is suspended, and the very scullion, who cleans the brasses in the kitchen, becomes of more consideration and importance than him. He does nothing for it, but abdicate, and from all evil which he can neither prevent nor mollify.

The husband gone, the ceremony begins. The walls in a few minutes stripped of their furniture: paintings, prints, and looking-glasses lie in a heap about the floors; the curtains are pulled from the fasteners, the beds crammed into the windows; chairs, tables, bedsteads and cradles, crowd the yard; and the garden fence is covered beneath the weight of carpets, blankets, cloth cloaks, old coats, ragged breeches. The lumber of the kitchen, forming a confused mass: for the foreground of the picture, gridirons, frying pans, rusty shovels, broken tongs, spits, and

pots, joint-stools, and ■ fractured remains of rush-bottomed chairs. There, a closet has disgorged its bowels, cracked tumblers, broken wine glasses, phials of forgotten physic, papers of unknown powders, seeds, ■ and dried herbs, handfuls of old corks, tops of teapots, and stoppers of departed decanters ;—from the rag-hole in the garret to the rat-hole in ■ cellar, no place escapes unrummaged. ■ It would seem as if the day of general doom was come, and the utensils of ■ house ■ dragged forth ■ judgment. In ■ tempest, the words of Lear naturally present themselves, and might, with ■ alteration, be ■ strictly applicable :

— " Let the great gods,
That keep this dreadful pudden o'er our heads,
Find ■ their enemies ■ Tremble, thou wretch,
That ■ within thee undrugged ■
Unwhipt of justice ■
— " Close pent-up guilt.
Raise your concealing ■ ask
These dreadful ■ grace !"

This ceremony completed, and the house thoroughly evacuated, the next operation is to smear the walls and ceilings of every room and closet with brushes dipped in a ■ lution of lime, called *white-wash* ; to pour buckets of water over every floor, and scratch all the partitions and wainscots with rough brushes wet with soap-suds, and dipped in stone-rutter's sard. The windows by no ■ escape the general deluge. A ■ scrambles out upon the pent-house, at the risk of her neck, and with a mug in her hand, and a bucket within reach, she dashes away invulnerable gallons of water against ■ glass panes ; to the great annoyance of the passers in the street.

I have been told that ■ law was ■ brought against ■ of these water nymphs, by a person who had ■ new suit of clothes spoiled by ■ operation ; but, after long argument, it ■ determined by the whole court, that the action would not lie, inasmuch ■ the defendant ■ in the ■ rise of ■ legal right, and not answerable for the consequences ; and ■ poor gentleman ■ doubly nonsuited ; for he lost ■ only his suit of clothes, but his suit at law.

These smearings and scratchings, washings and dashings, being duly performed, the next ■ ■ cleanse and replace the distracted furniture. You may have seen ■ house raising, or a ship-launch, when all the hands within reach ■ collected together : recollect, if you can, the hurry, bustle, confusion, and ■ of such ■ and you will have some idea of this cleaning match. The misfortune is, that the sole object ■ to make things clean ; it matters ■ how many useful, ornamental, ■ value- ■ articles are mutilated, ■ suffer

under the operation : a mahogany chair and carved frame undergo ■ discipline ; they are to be made *clean* ■ all events ; but ■ preservation ■ worthy of attention. For instance, a ■ large engraving is laid flat on the floor ; smaller prints are piled upon it, and the superincumbent weight cracks the glasses of the lower tier : but this ■ of no consequence. ■ valuable picture is placed leaning against the sharp corner ■ a table ; others are ■ lean against that, until the pressure of the whole forces ■ corner of the table through ■ of the first. The frame and glass of a fine print are to be *cleaned* ; ■ spirit ■ used on this occasion ■ to leak through and spoil the engraving ; no matter, if the glass is clean, and the ■ shine, it is sufficient ; the rest is not worthy of consideration. An able ■ has made an ■ calculation, ■ on long experience, ■ has discovered, that the losses and destruction incident to ■ white-washings ■ equal ■ removal, and three removals equal to one fire.

The cleaning frolic over, matters begin to resume their pristine aspect. The storm abates, and all would be well again, but it is impossible that ■ great ■ convulsion, in so small ■ community, should ■ produce some farther effects. For two or three weeks after the operation, the family are usually afflicted with ■ throats or sore eyes, occasioned by the caustic quality of the lime, or with severe colds from the exhalations of wet floors or damp walls.

I know ■ gentleman, who was ■ of accounting for every thing in ■ philosophical way. He considers this, which I have called a custom, ■ a real periodical disease, peculiar ■ the climate. His train of reasoning is ingenious and whimsical ; but I am not ■ leisure to give you ■ detail. The result was, ■ he found the distemper ■ be incurable ; but after ■ study, he conceived ■ had discovered ■ method ■ divert the evil he could ■ subdue. For this purpose he caused ■ small building, about twelve feet square, to be erected in his garden, and furnished with ■ ordinary chairs and tables ; and ■ few prints of the heapest sort ■ hung against the walls. ■ hope was, that when the white-washing frenzy seized ■ females ■ his family, they might repair to this apartment, and scrub, and smear, and ■ scour, to their heart's content ; and so spend the violence of the disease in this outpost, while he enjoyed himself in quiet ■ head-quarters. ■ the experiment ■ answer his expectation ; ■ was impossible it should, since a principal part of the gratification consists ■ the lady's having an uncontrolled right to tor- ■ her husband at least once a year, ■

to turn him out of doors, and take the reins of government in her own hand.

There is a much better contrivance than this of the philosopher; which is, to cover the walls of a house with paper; this is generally done, and though it is not so abominable, it at least shortens the period of female dominion. This is in the case of the flowers of various fancies, and made so ornamental, that the man admitted the house without perceiving its design.

There is also another alleviation of the husband's distress; he generally has the privilege of a small room or closet for his books and papers, the key of which is allowed to keep. This is considered as a privileged place, and is the land of Goshen to the plagues of Egypt. The man is extremely cautious, and has his guard. For should he inadvertently go to leave the key in his door, the housemaid, who is always on the watch for such an opportunity, immediately enters in triumph with buckets, brooms, and brushes; takes possession of the premises, and forthwith puts all his books and papers to rights: his utter confusion, and sometimes serious detriment. For instance:

A gentleman was sued by the executors of a tradesman, on a charge found against him in the deceased's books, for the amount of \$30. The defendant was strongly impressed with an idea that he had discharged the debt on a receipt; but, in the transaction of long standing, he knew where to find the receipt. His suit went on in course, and the time approached when judgment would be obtained against him. He then sat seriously down to examine a large bundle of old papers, which he had untied and displayed on a table for that purpose. In the midst of his search, he was suddenly called away on business of importance; he forgot to lock the door of his room. The housemaid, who had long been looking out for an opportunity, immediately entered with her usual implements, and with great alacrity to cleaning the room, and putting things to rights. The first object that struck her eye was the confused situation of the papers on the table, these without delay bundled together like so many dirty knives and forks; but in the action a small piece of paper was unnoticed on the floor, which happened to be the very receipt in question: as it had no very respectable appearance, it was soon after swept out with

the common dirt of the room, and carried in a rubbish pan into the yard. The tradesman had neglected to credit his book; the man could do nothing to obviate the charge, so judgment was against him. The man and his family for a fortnight after the whole was settled, and the money paid, one of the children took the receipt among the rubbish in the yard.

There is also another custom peculiar to the city of Philadelphia, and nearly allied to the former. It is the custom of washing the pavement before the doors every Saturday evening. I at first took this to be a regulation of the police; but on a further inquiry find it is a religious rite, preparatory to the Sabbath; and is, I believe, the only religious rite in which the numerous sects of this city perfectly agree. The washing begins about sunset, and continues about ten or eleven at night. It is very common for a stranger to walk the streets on these evenings; he runs a continual risk of having a bucket of dirty water thrown against his legs: but a Philadelphian born is so much accustomed to the danger, that he avoids it with surprising dexterity. It is from this circumstance that a Philadelphian may be known anywhere by his gait. The streets of New York are paved with rough stones; these indeed are not washed, but the dirt is so thoroughly swept from before the doors, that the stones stand up sharp and prominent, to the great inconvenience of those who are accustomed to a rough path. The Philadelphian reconciles every thing. It is diverting enough to see a Philadelphian in New York; he walks the streets with much painful caution, as if his toes were covered with corns, or his feet lamed with the gout; while a New Yorker, with little approving plain masonry of Philadelphia, stumbles along the pavement on a parrot mahogany table.

The man be acknowledged, the ability I have mentioned are with no inconvenience; but the man not be indeed, from any consideration, to resign their privilege. Notwithstanding this, I can give you the strongest assurances, that the women of America make the most faithful wives and the most attentive mothers in the world; and I am sure you will join in opinion, that if a married man is more miserable only one week in a whole year, he will have a great deal of complaint of matrimonial bond.

I am,

MISCELLANEOUS NOTES

ON

POLITICAL PUBLICATIONS PRIOR TO THE REVOLUTION,

COLLECTED

FROM THE AUTOGRAPH NOTES OF DR. FRANKLIN, THE MATERIALS
OR

*Hints for a Reply to the Protests of certain Members of the House of Lords against
the Repeal of the Stamp Act.*

FIRST PROTEST.

We have submitted to your laws,—no proof of — acknowledgment of your power to make them, rather — acknowledgment of their reasonableness, — of our own wretches. — Post-office came — a matter of utility, — was aided by the legislature. Wean to take advantage of our ignorance. Children should not be imposed on, are not, — by honest shopkeepers. A great and magnanimous nation should disdain to govern by tricks and traps, that would disgrace a pettily-giggling attorney.

Settlement of the colonies stated. Parliament not consulted,—not till after the restoration, except by rebel Parliament — anxious about preserving the sovereignty of this country? Rather be — about preserving the liberty. We shall be so about the liberty of America, that your posterity may have a free country to come to, where they will be received with open arms.

King, the sovereign, cannot take in his

In the Appendix it appears that Franklin soon after his return from London, had been selected for publication both in the historical and the contemporary character of the author.

It should here be observed that the notes contained in these pamphlets were printed at the very time when he was supposed by some persons, either friendly to his character or ignorant of his motives, to be secretly acting a part in the motion. As we are not his private animi, but to the high duties of a true lover of his country, the true temper and substance of these notes let the reader judge. What justice such suspicions have been entertained and such insinuations heaped on the public. A private record of — though, it is prompted by impulse of the moment, without any design of — ever seeing the light, — must be admitted to be his — sentiment is to exhibit the unknown workings of —

The above hints are the original margin of Dr. Franklin's printed copy of the Protest written at the time (1766) from which it would appear that it was his intention to make a formal answer to the Protest. This purpose is believed to have never been

Parliament, — least can give no greater power than he himself.

Compliment the lords. Not a worse or better body of men on earth. The deep respect impressed on me by the instance I have been witness to of their justice. They have been misled by misinformation. Proof of my opinion of their goodness, in the free done with which I propose to examine their protests.

The trust of taxing America was never reposed by the people of America in the legislature of Great Britain. They — one kind of confidence, indeed, in that legislature,—that it would never attempt to tax them without their consent. The law — destructive of that confidence among them.

Other advantages of colonies beside commercial selfishness of commercial views.

The sovereignty of the crown I understand. The sovereignty of the British legislature out of Britain I do not understand.

The fear of being thought weak is a timidity and weakness of the worst sort, — it betrays into a persisting — errors, that may be much — mischievous, than the appearance of weakness. A great and powerful state, like this, has — for such — duty.

Acknowledging and correcting — error shows great magnanimity. Small states and small republics cannot afford to do so.

America not in the realm of England or Great Britain? No — America thinks herself exempt from the jurisdiction of the crown, and of the assembly, or has any such private judgment.

The agitation of the question of rights makes it now necessary to settle a constitution for the colonies. Restrictions should — only for the general good. Endeavour to convince reasonable creatures by reason. Try your hands with —

— Never think of it. They — reasonable creature. Reasonable laws will — require force.

I observe two or three [redacted] lords pro-
[redacted] Many [redacted] voted against [redacted] repeal.
Colonies [redacted] before the union. Query;
If the Parliament had a jurisdiction over the
colonies by the [redacted] settlement, had they a
right to introduce new legislators? [redacted]
they sell or [redacted] right [redacted] other na-
tions? Can they introduce the peers of In-
[redacted] Commons, [redacted] of Hol-
land, and [redacted] of the colonies?
How could [redacted] land acquire a right
[redacted] legislation [redacted] English colonies, but by
[redacted] of [redacted] colonies themselves?

I am a subject of the crown of Great Brit-
tain,—have [redacted] a loyal one,—have
partaken of its favours. I write here with
freedom, relying on the magnanimity of Par-
liament. I say nothing [redacted] your lordships,
that I have not [redacted] indulged [redacted] say [redacted]
Commons. Your lordships' [redacted] [redacted]
your Protest, [redacted] I think I ought to put
[redacted] to [redacted] answer.—Desire what I have
said may [redacted] be imputed [redacted] the colonies. I
[redacted] a private person, and do [redacted] write by their
direction. I [redacted] here [redacted] solicit, in be-
half of my colony, a closer communication
with the crown.

SECOND PROTEST.

TALK with Bollen [redacted] this head. Query;
[redacted] of [redacted] law? Particular colo-
nies drained,—all drained, as it would all
come home. Those, that would pay [redacted]
of [redacted] tax, would have least of it spent at
home. It must go [redacted] the conquered colonies.
The view of maps deceives.

All breach of [redacted] constitution. Juries bet-

ter be trusted. Have rather an interest in
suppressing smugglers. Nature of smug-
gling. It is picking of pockets. All oppres-
sions take their rise from some plea of utility;
[redacted] is appearance only.

The clamour of multitudes. It is good [redacted]
attend to it. [redacted] is wiser to foresee and avoid
it. It is wise, when benefit foreseen not
avoided, to correct the measures that give oc-
casion to it. Glad [redacted] majority have that
wisdom.

Wish your lordships had attended to that
other great article of the palladium; "Taxes
shall not be laid but by common [redacted] in
Parliament." We Americans [redacted] here
[redacted] give our common.

My duty to the king, and justice [redacted] my
country, will, I hope, justify me, if I like-
wise protest, which I now do with [redacted] hu-
mility in behalf of myself [redacted] of every
American, and of our posterity, against your
Declaratory Bill, [redacted] [redacted] Parli-
ment of Great Britain [redacted] not, [redacted] had, and of right
never can have, without consent, given either
before or after, power to make laws of suffi-
cient force to bind the [redacted] in America
in any [redacted] whatever, and particularly in
taxation.

I can only judge of others by myself. [redacted]
I have some little property in America. I will
freely spend nineteen shillings in the pound
[redacted] my right of giving or refusing the
other shilling; and, after [redacted] if I [redacted] de-
fect that right, I can retire cheerfully with
my little family into the boundless woods of
America, which [redacted] sure to afford freedom
and subsistence to any man, who [redacted] [redacted]
hook, or pull a trigger.

OBSERVATIONS

IN A PAMPHLET ENTITLED "GOOD HUMOUR, [redacted] A WAY
[redacted] COLONIES.—LONDON 1766."*

"THE reply of the Governor of Massachu-
setts to the assembly's answer is in the same
consistent style; and affords still a stronger
proof, as well as of his own ingenuity, honour,
and integrity, as of the furious and enthusiastic
spirit of the province."

They knew [redacted] governor [redacted] he, [redacted] it after-

* [redacted] passages [redacted] quotation marks
[redacted] extracts from [redacted] pamphlet, and the mention fol-
lowing [redacted] Dr Franklin

ward's turned out, their enemy [redacted] calum-
niator in private letters [redacted] government here.

"It had been more becoming the state of the
colonies, always dear [redacted] Britain, and [redacted] che-
rished and defended by it, to have remonstrated
in terms of filial duty and obedience."

How ignorant is this writer of facts! [redacted]
[redacted] of their [redacted] [redacted] rejected!

"They must give us leave in our turn to ex-

cept against their demonstration of legal exemption."

"[redacted] never was any occasion of legal exemption from what they [redacted] [redacted] been subject [redacted]"

"But then it is to be further observed, that this same method of arguing is equally favourable to governors as governed, and to the mother country as the colonies."

Here is the [redacted] mistake of [redacted] these writers. The people of the mother country are subjects, not governors. The king only is sovereign in both countries.

"The colonies will no longer think it equitable to insist upon immunities which the people [redacted] Britain do not enjoy."

Why not, if they have a right to them?

"To claim a right of being taxed by their [redacted] only, appears to have too much [redacted] air of independence; [redacted] though they are not represented here, would give them an immunity beyond the inhabitants of this island."

It is a right, however; what signifies what air it has? The inhabitants being freeholders ought to have the same. If they have it not, they are injured. Then rectify what is amiss among yourselves; and do not make it a justification of more wrong.

"Or could they hope to procure any advantages from one hundred representatives? Common sense answers all this in the negative."

Why not, as well as Scotland from forty-five, or rather sixty-one? Common sense, on the contrary, says, that a body of one hundred votes in Parliament will always be worth the attention of any ministry; and the fear of offending them will make every minister cautious of injuring the rights of their country, lest they join with his opposers in Parliament.

"Therefore the interest of Great Britain and that of the colonies is the same."

All this argument of the interest of Britain and the colonies being the same is fallacious and unsatisfactory. Partners in trade have a [redacted] interest, [redacted] [redacted] same, the flourishing of the partnership business; but they may, moreover, have each a separate interest, and, in pursuit of that separate in-

terest, one of them may endeavour to impose on the other, may cheat him in the accounts, may draw to himself more than his share of the profits, may put upon [redacted] other more than an equal share of the expense and burden. Their having a common interest is no security against such injustice. The landholders of Great Britain have a common interest, and yet they injure one another in the inequality of the land tax. The majority in Parliament, being favoured in the proportions, will never consent to do justice to the minority by a more equal assessment.

"But what reasonable ground of apprehension can there be, [redacted] British Parliament should be ignorant of so plain a matter, as that the interests of Britain and the colonies are the same?"

If the Parliament is so knowing and so just, how comes it to restrain Ireland in its manufactures, America its trade? Why may not an Irishman or an American make the same manufactures, and carry them to the same ports as an Englishman? In many instances Britain shows a selfish regard to her own interest, in prejudice of the colonies. America therefore has no confidence in her equity.

"But I can conceive no earthly security better, more indeed so good, as that which depends upon the wisdom and integrity of a British king and Parliament."

Suppose [redacted] in your House of Commons hereditary, as those of the House of Lords; or suppose the Commons to be [redacted] by the king, or chosen by the lords; could you then rely upon them? If your members were to be chosen by the people of Ireland, would you then rely upon them? Could you depend upon their wisdom and integrity, as a security, the best possible, for your rights? And wherein is our case different, if the people [redacted] England choose legislators for [redacted] people of America?

"If they have a spark of virtue left, they will shrink to be found in a posture of hostility against Great Britain."

There was no posture of hostility in America, but Britain put herself in a posture of hostility against America. [redacted] [redacted] landing of the troops in Boston, 1768.

OBSERVATIONS

IN "A LETTER FROM A SETTLER IN AMERICA TO HIS NEPHEW IN ENGLAND.—LONDON, 1766."

"THE honest indignation you express against these arms, and frands, those robberies and insults, which lost us the hearts and affections of the Indians, is particularly to be commended; these were such things, as you justly observed, which involved us in the bloody and penarve war which is known."

This is wickedly intended by the author, Dear Tucker, to represent the North Americans as the cause of the war. Whereas, it was in fact begun by the French, who seized the goods and persons of the English traders on the Ohio, who encroached on the king's land in Nova Scotia, and took a fort from the Ohio Company by force of arms, which induced England to make reprisals at once to send Braddock to recover the fort on the Ohio, whence the war.

"By the spirit of Magna Charta all taxes laid on by Parliament are constitutional, legal taxes."

There is no doubt but that taxes laid by Parliament, where the Parliament has jurisdiction, are legal taxes; but does it follow, that taxes laid by the Parliament of England on Scotland before the union, on Guernsey, Jersey, Ireland, Hanover, or any other dominions of the crown, not within the realm, are therefore legal? These writers against the colonies bewilder themselves by supposing the colonies to be within the realm, which is not the case. This then is the spirit of the constitution, that taxes shall not be levied without the consent of those to be taxed. The colonies are then in being, and therefore the laws relating to them could be literally expressed. As the Americans are without the realm, and out of the jurisdiction of Parliament, the spirit of the constitution dictates, that they should be governed only by their own representatives, as the English are by theirs.

"Now the emigrants, who settled in America, were certainly English subjects, and yet they were out of the jurisdiction of Parliament, consequently to parliamentary taxes, the emigration, and therefore subject afterwards, to legal exemption can be produced."

The position supposes, that Englishmen are out of the jurisdiction of Parliament. It is as well said, that when

ever an Englishman resides, in any country in England. When an Englishman resides in England, he is undoubtedly subject to the laws. If he goes into a foreign country, he is subject to the government there. If there is no government or laws there, he is subject to none, he and his companions, if he has any, make laws for themselves; and this was the case of the first settlers in America. Otherwise, if they carried the English laws and power of Parliament with them, what advantage could the Puritans propose to themselves by going, since they would have been as subject to bishops, spiritual courts, tithes, and statutes relating to the church, in America, as in England? Can the dean, on his principles, tell how it happens that those laws, the acts, the statutes for labourers, and an infinity of others, made before and since the emigration, are not in force in America, nor ever were?

"Now, upon the first settling of an English colony, and before ever you Americans could have chosen any representatives, and therefore had any assembly of such representatives could have possibly met,—to whose laws and to what legislative power were you then subject? To the English, most undoubtedly; you could have been subject to no other."

The author here appears quite ignorant of the fact. The colonies carried no law with them; they carried only a power of making laws, or adopting such parts of the English law or any other law, as they thought suitable to their circumstances. The settlers of Connecticut, for instance, at their first meeting in their country, finding themselves out of all jurisdiction of other governments, resolved to enact, that, till a code of laws should be prepared and agreed to, they would be governed by the law of Moses, as contained in the Old Testament.

If the first settlers had no right to expect a better constitution than the English, what fools were they for going over, and all the hardships and perils of new settlements in a wilderness? For these were so many additions to what they suffered at home from tyrannical and oppressive institutions in church and state; with a subtrac-

tion of all their old enjoyments of the conveniences and comforts of an old country, friends, neighbours, relations, and homes.

"Suppose, therefore, that the crown had been so ill advised as to have granted a charter to any city or county here in England, pretending to exempt them from the power and jurisdiction of an British Parliament. Is it possible for you to believe an absurdity so gross glaring?"

The American settlers needed no exemption from the power of Parliament; they were necessarily exempted, as soon as they landed out of its jurisdiction. Therefore, all this rhetorical paragraph is a mistake of the author, and an absurdity he talks of is of his own making.

"Heavens! a sudden alteration in this! pleading for the extension of the prerogative of the crown! Yes, if it could make for his cause; and for extending it, too, beyond the bounds of the law, of reason, and of common sense."

What stuff! Why may not an American plead for the just prerogatives of the crown? And is not a just prerogative of the crown to give the subjects leave to settle in a foreign country, if they think it necessary to ask such leave? Was the Parliament at all considered, or consulted, in making those first settlements? Or did any lawyer then think it necessary?

"Now this clause, which is nothing more than the renunciation of absolute prerogative, is quoted in our newspapers, as if it was a renunciation of the rights of Parliament to raise taxes."

It was not a renunciation of the rights of Parliament. There was no need of such a renunciation, for Parliament did not pretend to such a right. But, since the royal was pledged by the king for himself and his successors, how can any succeeding king, without violating that faith, ever give his assent to an act of Parliament for such

"Nay, of your colony charters quite contrary, by containing the express reservations of parliamentary rights, particularly great one of levying taxes."

A fit, Mr. Dean. In one charter only, and that a late one, is the Parliament mentioned; and the right reserved is only that of laying duties on commodities imported into England from the colony or exported to it.

"And those charters, which do not make such provisions in express terms, must be supposed virtually to imply them; because the law and constitution will not allow, that the king can do more either at home or abroad by the prerogative royal, than the constitution authorizes him to do."

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Suppositions and implications will not weigh in these important cases. No law or constitution forbids the king's doing he did in granting those charters.

"Confuted, most undoubtedly, you are beyond the possibility of a reply, as far as the law and constitution of the realm are concerned in this question."

This is hallooing before you out of the wood.

"Strange, that though the British Parliament has been, from the beginning, thus unreasonable, thus unjust and cruel towards you, by levying taxes on many occasions, and upwards!"

False! Never before the restoration. The Parliament, in its acknowledged, have made many oppressive laws relating to America, which have passed without opposition, partly through the weakness of the colonies, partly through their inattention to the full extent of their rights, while employed in labour to procure the necessities of life. But is a wicked guardian, and a shameless one, who first takes advantage of the weakness incident to minority, cheats and imposes on his pupil, and when the pupil comes of age, urges those very impositions as precedents to justify continuing them and adding others.

"Surely you will not dare say, we refuse your vote when you come hither to offer them, and choose to poll. You cannot have the face to assert that on an election-day any difference is put between the of a man born in America, and of one born here in England."

This is all banter and insult, when you know the impossibility of a million of freeholders coming over sea to vote here. Their freeholds in America within the realm, why have they not, in virtue of these freeholds, a right to vote in your elections, as well as an English freeholder? Sometimes we are told, that states by our charters all in the manor of East Greenwich, and therefore all in England; and yet have we any right to vote among the voters of Greenwich? Can we trade the same ports? In this very paragraph, you suppose that we are in England, if we come hither, till we have by purchase acquired a right; therefore neither our are represented in England.

"The cause of your complaint is this; you live at too great a distance from the mother country to be present at our English elections; and that, in consequence of distance, the freedom of our towns, or the freeholds in our as far as voting is concerned, are not worth attending to. It may be so; but pray consider, if you yourselves choose to make it inconvenient for you to stand vote, by

tiring ■■■■ countries,—what ■■■■ us?"

"The ■■■■ all ■■■■ mark. The Americans are by their constitutions provided ■■■■ representation, ■■■■ neither ■■■■ any in the ■■■■ Parliament. They have ■■■■ any ■■■■ thing. They only say, ■■■■ have a right to grant ■■■■ own money ■■■■ the king, since ■■■■ have ■■■■ where ■■■■ are represent ■■■■ such purposes, why will you meddle, out of your sphere, ■■■■ the money that is ours, and give us yours, without our consent?"

"Yes, it is, and you ■■■■ it too with a loud voice, full of anger, of defiance, and denunciation."

An absolute falsehood! ■■■■ demanded in any ■■■■ much less in the manner you mention, that ■■■■ mother country should change her constitution.

"In the great metropolis, and in many other cities, landed property itself hath no representative ■■■■ Parliament. Copy-holds and lease-holds of various kinds have ■■■■ likewise, though of ever so great a value."

Copy-holds and lease-holds ■■■■ supposed to ■■■■ represented in the original landlord of whom they ■■■■ held. Thus all the ■■■■ in England is in fact represented, notwithstanding what he here says. As to those ■■■■ who have ■■■■ landed property in a country, the allowing them to vote for legislators is an impropriety. They are transient inhabitants, and ■■■■ so connected with the welfare of the state, which they may quit when they please, ■■■■ to qualify them properly for such privilege.

"And, besides all this, it is well known that the East India Company, which have such vast ■■■■ which dispose of the ■■■■ of kings and kingdoms abroad, have not ■■■■ much ■■■■ a single member, or even a single vote, *quatenus* a company, to watch over their interests at home. And may not their property, perhaps a little short of one hundred millions sterling, as much deserve to be represented in Parliament, as the scattered townships or struggling houses of some of your provinces in America?"

By ■■■■ argument it may be proved, that no ■■■■ in England ■■■■ The clergy have none as clergymen; the lawyers, ■■■■ lawyers; the physicians, none as physicians; ■■■■ on. But if they have votes ■■■■ freeholders, that is sufficient; and that ■■■■ freeholder in America has for a representative ■■■■ the British Parliament. The stockholders are many of them foreigners, and ■■■■ may ■■■■ so when they please, as nothing is more easy than the transferring of ■■■■ stock and conveying property beyond sea by bills of exchange. Such uncertain sub-

jects are, therefore, not properly vested with rights relating to government.

"Yet we raise no commotions; we neither ring the alarm-bell, nor sound the trumpet, and submit to be taxed without being represented; ■■■■ taxed, ■■■■ me ■■■■ you, for your sakes. All ■■■■ granted when you cried ■■■■ help."

This is wickedly false. While ■■■■ colonies were weak and poor, not a penny or a single soldier was ■■■■ spared by ■■■■ for their defence. But ■■■■ soon as the trade with ■■■■ became an object, ■■■■ a fear arose that the French would seize ■■■■ and deprive her of it, she sent troops to America *unasked*. And ■■■■ brings ■■■■ account of the expense against ■■■■ which should be rather carried ■■■■ her ■■■■ merchants and manufacturers. We joined our troops and ■■■■ with hers ■■■■ help her in this ■■■■ Of this no notice is taken. To refuse to pay a just ■■■■ is knavish; not ■■■■ an obligation ■■■■ ingratitude; ■■■■ to demand payment of a debt where none has been contracted, to forge a bond or an obligation in order to demand what was never due, is villany. Every year both king and Parliament, during the war, acknowledged that ■■■■ had done more ■■■■ our part, and ■■■■ us ■■■■ return, which ■■■■ equivalent ■■■■ receipt in full, and ■■■■ direly ■■■■ aside this ■■■■ claim.

By all ■■■■ redress your ■■■■ grievances. If you ■■■■ not just ■■■■ your own people, how can we trust you? We ask no representation among you; but if you have any thing wrong among yourselves, rectify it, and ■■■■ make one injustice a precedent and plea for doing another. That would be increasing evil in the world instead of diminishing it.

You need ■■■■ be concerned about the number to be ■■■■ from America. We do not desire ■■■■ come among you; but you may make ■■■■ room for your ■■■■ additional members, by removing those that are ■■■■ by the ■■■■ boroughs.

"I ■■■■ you, that every member of Parliament represents you, and me, and our interests in all essential points, just as much as if we had voted for him. For although one place or one set of men may elect and send him up to Parliament, yet, when once he becomes a member, he is the equal guardian of all."

In the ■■■■ Dean, are ■■■■ pope and ■■■■ representatives of ■■■■ whole Christian church. Why don't you obey them?

"This, then, being ■■■■ case, it therefore ■■■■ lows, that our Birminghams, Manchesters, Leeds, Halifaxes, ■■■■ and your Bostons, New-Yorks, and Philadelphia, are as really, though not ■■■■ nominally, represented, as any part what-

soever of the British empire; that each of these places have in fact, instead of one or two, not less than five and fifty-eight guards in the Senate."

"Is there then, my dear sir, of being the trouble of elections? The people would well for our guardians, though chosen by the king, or born such. If their present number is too small, his majesty may good enough add five hundred fifty-eight, or make the present House of Commons and their heirs-male peers for ever. If having a in elections would be of to us, how it of any? Elections are the cause of much tumult, riot, contention, and mischief. Get rid of them once, and for

"It proves that we men ought any tax but that only to which the member of his own town, city, or county hath particularly assented."

You to take your nephew for a simpton, Mr. Dean. Every one, who a representative, knows and intends, that the majority is to govern, and that the consent of the majority is be understood as the consent of the whole; that being the case in all deliberative assemblies.

"The doctrine of implication is the very thing to which you object, and against which you have raised many instances of popular noise and clamour."

How far, my dear sir, would you yourself carry the doctrine of implication? If important positions be implied, when not expressed, I suppose you can have no objection to their being implied where some expression the implication. If you should say a friend, "I your humble servant, sir," ought he to imply from thence that you will clean his shoes?

"And consequently you maintain, all those in your several provinces who have no votes," &c.

No freeholder in North America is without a vote. Many, who have freeholds, have nevertheless vote; which, indeed, I don't think was necessary to be allowed.

"You have your choice whether you will accept of my price your tobacco; or, after bringing here, whether you will carry it away, and try your fortune at another market."

A great kindness this, oblige me first bring it here, that the expense of another voyage and freight may deter me from carrying it away, and oblige me to the price you pleased to offer.

"But I have alternative allowed, being obliged to buy your own price, or else to pay such a duty for the tobacco of other countries, is prohibition."

Nay, in order to favour your plantations, I am not permitted to plant this herb on my own estate, though the soil should be ever so proper for it."

You lay a duty the tobacco of countries, because you must pay money for that, but get ours in exchange for your manufactures.

Tobacco be planted in England, that should interfere corn necessary for your subsistence. Rice you cannot raise. It requires eleven Your is short. Nature, the laws, denies you product.

"And what will you say in relation to hemp? The Parliament now gives you a bounty eight pounds per ton for exporting your hemp from North America, but will allow me nothing for growing it here in England."

Did my North American bring hemp to England for bounty? We have yet enough for our own consumption. We begin make our own cordage. You want to suppress that manufacture, and would do it by getting the raw material from us. You to be supplied with hemp for your manufactures, and Russia demands money. These were the motives for giving what you pleased call bounty to us. We you for your bounties. We love you, and therefore he obliged to you for being good yourselves. You do not encourage raising hemp in England, because you know it impoverishes the richest grounds; your landholders all against it. What you call bounties given by Parliament and the society, nothing more than inducements offered us, to persuade us to leave employments that more profitable, and engage such as would be less so without your bounty; to quit a business profitable to ourselves, and engage in one that shall be profitable you. This is the true spirit of all your bounties.

Your duties on foreign articles are from the motives. Pitch, tar, and turpentine used to cost you five pounds a barrel when you had them from foreigners, who used you ill into the bargain, thinking you could not do without them. You gave a bounty of five shillings a barrel the colonies, and they have brought you such plenty as reduce the price shillings a barrel. Take back your bounties you please, since you upbraid with them. Buy your indigo, pitch, silk, and tobacco where you please, and let us buy manufactures where we please. I fancy shall gainers. As the great kindness these five hundred and fifty-eight parliamentary guardians of American privileges, who forbear smiling, has seen the Navigation Act, the Hatters' Act, the Steel-

Hammer [REDACTED] Slit-Iron Act, and numberless [REDACTED] restraining our trade, obstructing our manufactures, and forbidding [REDACTED] the use of the gifts of God and nature. [REDACTED] hopeful guardians, truly! Can it [REDACTED] imagined, that, if [REDACTED] a reasonable share in electing them, from time to time, they would thus have used us!

—“And must have seen abundant reason before this time to have altered your former hasty and rash opinion.”

We [REDACTED] in you abundance of self-conceit, [REDACTED] no convincing argument.

“Have you no concerts or assemblies, no play-houses or gaming-houses, now subsisting? Have you put down your horse-races and other such like sports and diversions? And is the luxury of your tables, and the variety and profusion of your wines [REDACTED] liquors, quite banished from among you?”

This [REDACTED] be a caution [REDACTED] Americans, how they indulge for the future in British luxuries. [REDACTED] here [REDACTED] generosity! The people, who have made you poor by their worthless, [REDACTED] useless, commodities, would [REDACTED] make you poorer by taxing you; and from the very inability you have brought on yourselves, by a partiality for their fashions and modes of living, of which they have had [REDACTED] whole profit, would now urge your ability to pay the taxes they are pleased to impose. Reject, then, their commerce as well as their pretended power of taxing. Be frugal and industrious, and you will be free. The luxury of your tables, which could be known [REDACTED] the English only by your hospitably entertaining them, is by these grateful guests [REDACTED] made a charge against you, and given [REDACTED] a reason for [REDACTED] ing you.

“Be it also allowed, as it is commonly asserted, that the public [REDACTED] of the several provinces [REDACTED] eight hundred thousand pounds sterling.”

I have heard, [REDACTED] Dean, that you have [REDACTED] political arithmetic [REDACTED] than divinity, but, by this sample of it, I fear to very [REDACTED] purpose. [REDACTED] personal service were the [REDACTED] in question, [REDACTED] of [REDACTED] many millions of souls, so many men might be expected, whether [REDACTED] in America. But when raising money [REDACTED] question, [REDACTED] is not the number of souls, [REDACTED] wealth in possession, [REDACTED] shows [REDACTED] ability. [REDACTED] we were twice [REDACTED] the people of England, it would [REDACTED] follow that [REDACTED] are half [REDACTED] able. There are numbers of single [REDACTED] in England, each worth a [REDACTED] of the [REDACTED] of [REDACTED] in North America. [REDACTED] city of London alone is worth [REDACTED] provinces of North America.

“When each of us pays, one with another, twenty shillings per head, we expect that each

of you should pay the sum of one shilling! Blush, blush, for shame [REDACTED] your perverse and scandalous behaviour!”

Blush for shame [REDACTED] your own ignorance, [REDACTED] Dean, who do not know, that [REDACTED] colonies have taxes, and heavy ones of their own to pay, to support their own civil and military establishments; [REDACTED] the shillings should [REDACTED] be [REDACTED] [REDACTED], but upon pounds. There never was a [REDACTED] argument.

“[REDACTED] county taxes, [REDACTED] taxes, poor [REDACTED] vagrant [REDACTED] bridge taxes, high-road and turnpike taxes, [REDACTED] lamp [REDACTED] venger taxes, &c. &c.”

And have [REDACTED] too, as [REDACTED] you, and our provincial or public [REDACTED] besides! And over [REDACTED] above, have we not new roads [REDACTED] make, [REDACTED] bridges to build, churches and colleges to found, and [REDACTED] number of other things to do, that your fathers have done for you, and which you inherit from them, but which we [REDACTED] obliged [REDACTED] pay for [REDACTED] of our present labour!

“We require of you [REDACTED] contribute only [REDACTED] shilling to every twenty from each of us. Yes, and this shilling too to be spent in your own country, for the support of your [REDACTED] civil [REDACTED] military establishments.”

How fond he [REDACTED] of this one shilling [REDACTED] twenty. Who has desired this of you, and who can trust you to lay it out! If you are thus to provide for our civil and military establishments, what [REDACTED] will there afterwards be for our assemblies!

“And yet, small and inconsiderable [REDACTED] this share is, you will not pay it. No, you will not! and it is at our peril if we demand it!”

No! [REDACTED] will pay nothing [REDACTED] compulsion.

“For how, and in what manner, do you prove your allegations? Why truly by breaking [REDACTED] into riots and insurrections, and by committing every kind of violence that can cause trade to stagnate, and industry [REDACTED] cease.”

The Americans [REDACTED] brought riots and arguments. [REDACTED] unjust charge [REDACTED] three riots in particular places [REDACTED] America. Look for arguments in the petitions and [REDACTED] of the assemblies, who detest riots, of which there [REDACTED] in England for [REDACTED] in America.

“Perhaps you [REDACTED] insinuate (though it was prudence in you not to speak out), that the late act was ill-contrived and ill-timed, because it was made [REDACTED] a juncture when [REDACTED] the French were in your [REDACTED] frighten, nor the English [REDACTED] armies on your front to force you to a compliance.”

It seems a prevailing opinion in England, that fear of their French neighbours would have kept the colonies [REDACTED] obedience [REDACTED]

MISCELLANEOUS.

Parliament, and that if the French power not been subdued, opposition would have been made to the Stamp Act. A very groundless notion. On the contrary, had the French power continued, which Americans might have recourse in the case of oppression from Parliament, Parliament would not have dared oppose them. It was the employment of fifty thousand men by the French fleet on the coast, for five years, to subdue the French only. Half the land army were provincials. Suppose the British twenty-five thousand had acted by themselves, with the colonies against them; what time would it have taken to subdue the whole?

"Or shall we give you entirely up, unless you will submit to be governed by the same laws as we are, and pay something towards maintaining yourselves?"

The impudence of this language to colonies, who have maintained themselves, is astonishing! Except the late attempted colonies of Nova Scotia and Georgia, no colony ever received maintenance in any shape from Britain; and the grants to those colonies were mere jobs for the benefit of ministerial favourites, English or Scotchmen.

"Whether we give you entirely up, and, having obliged you to pay your debts, whether we are to have further connection with you as a dependent colony?"

Throughout all America English debts are more easily recovered than in England, the process being shorter and less expensive, and land subject to execution for the payment of debts. Evidence, taken *in parte* in England, to prove a debt, is allowed in their courts, and during the whole dispute there was not a single instance of any English merchant's meeting with least obstruction in any process suit commenced there for that purpose.

"Externally, by being severed from the British empire, you are excluded from cutting logwood in the bays of Campeachy and Honduras, from fishing on the banks of Newfoundland, on the coast of Labrador, in the bay of St. Lawrence, &c."

We have no use for logwood, but to remit it for your fisheries. We joined in conquering the Bay of St. Lawrence and dependencies. As the Sugar Islands, you won't allow us trade with them, perhaps you will allow them trade with us; or do you intend to keep them? Pray keep your bounties, and let us hear more of them;—and your troops, who never protected against the savages, nor are fit for such service;—and the

thousand pounds, which you seem to think so much clear profit to us, when, in fact, they never spend a penny among us, but they have for it from us a penny's worth. The manufactures they buy are brought from you; the provisions could, as we always did, sell elsewhere for money. Holland, France, and Spain would be glad of our custom, pleased to see the separation.

"And after all, and in spite of any thing you can do, we in Britain shall still retain the greatest part of your European trade, because we shall give a better price for many of your commodities, than you can have any where else, and we shall sell to you several of our manufactures, especially in the woollen-stuff and metal way, on cheaper terms."

Oho! Then you will still trade with us! That we shall be without our trading with you? And how can you buy our oil, if we catch no whales?

"The leaders of your parties will then be setting all their engines to work, to make fools become the dupes of fools."

Just as they do in England.

"And of having troops to them, and those troops paid by Great Britain. They must defend themselves, pay themselves."

To defend them!—To oppress, insult, and murder them, as at Boston!

"Not to mention that the expenses of your civil governments will be necessarily increased; and that a fleet more or less must belong to each province for guarding their coasts, insuring the payment of duties, and the like."

These evils are all imaginations of the author. The are predicted to the Netherlands, but have yet happened. But suppose all of them together, and many more, it would be better to bear them than submit to parliamentary taxation. We might still have something we could call our own. But, under the power claimed by Parliament, we have not a single pence.

The author of this pamphlet, Dean Tucker, has always been haunted with fear of the of government being soon be removed from America. He has, in Tracts on Commerce, just notions in matters of trade and police, mixed with many wild chimerical fancies totally impracticable. once proposed, as a of the colonies, to clear the woods for width of along behind them, that the Indian might not be able cross the cleared part without being seen; forgetting that a night in every twenty-four hours.

OBSERVATIONS

"AN INQUIRY INTO THE RIGHTS AND LIBERTIES OF THE COLONIES BETWEEN THE BRITISH PARLIAMENT AND THEIR MOTHER COUNTRY.—LONDON, 1782."

"Sovereign power and authority [blank] not, cannot, [blank] equally every where throughout an empire."

Writers on this subject often confuse themselves with the idea, [blank] all the king's dominions make one state, which they do not, [blank] ever [blank] conquest. Our kings have [blank] dominions [blank] subject to the English parliament. At first the provinces of France, of which Jersey and Guernsey remain, always governed by their own laws, appealing to the king in Council only, and not to our courts or the House of Lords. Scotland was in the same situation before [blank] union. It had the [blank] king, but a separate Parliament, and the Parliament of England had no jurisdiction over it. Ireland the [blank] in truth, though the [blank] Parliament has usurped [blank] dominion [blank] it. The colonies were originally settled in the [blank] of such extrinsic dominions of the king, and of the king only. Hanover is now such a dominion.

"If each Assembly, in this case, were absolute, they would, it is evident, form not one only, but so many different governments perfectly independent of [blank] another."

This is the only clear idea of their real present condition. Their only bond of union [blank] king.

"Now that of [blank] Britain being exactly the kind of government I have been speaking of, [blank] impossible of vesting [blank] American Assemblies with an authority in [blank] respects equal [blank] of the mother country. [blank] actually dismembering [blank] British empire, [blank] naturally [blank] every one."

[blank] would [blank] be dismembering it, if it [blank] united, as in truth, [blank] yet [blank] been. Breaking [blank] present union between England and Scotland would be dismembering the empire; but [blank] such union [blank] yet [blank] formed between Britain [blank] colonies.

"Where diverse [blank] and distant countries are united under one government, an equal and [blank] representation [blank] almost impracticable, or, [blank] least, extremely inconvenient."

Here appears the excellency of the invention of colony government, by separate, in-

dependent legislatures. By this [blank], the remotest parts of a great empire may be as well governed as the centre; misrule, oppressions of proconsuls, [blank] discontents [blank] rebellions thence arising, prevented. By this means the power of a king may be extended [blank] without inconvenience over territories of any dimensions, how great soever. America was thus happily governed in all its different and [blank] settlements, by the [blank] and their own Assemblies, till the new politics took place of governing it by one Parliament, which have not succeeded and never will.

"Should [blank] carry our supposition much farther, the inconveniences attending such long journeys would [blank] very great, although not interrupted by water."

Water, so far from being [blank] obstruction, is a means of facilitating such assemblies from distant countries. A voyage of three thousand miles by [blank] is [blank] easily performed than a journey of [blank] thousand by land.

It is, in my opinion, by no means impracticable to bring representatives conveniently from America to Britain; but I think the present mode of letting them govern themselves by their [blank] Assemblies much preferable. They will always be better governed; and the Parliament has business enough here with its [blank] internal [blank].

"Whether they [blank] not be [blank] such a form of government, as will best secure to them their just rights and natural liberties."

They have [blank] already. All the difficulties have [blank] from the British Parliament attempting to deprive them of it.

"Is it not, [blank] we ask, [blank] egregious folly, so loudly to condemn the Stuart family, who would have governed England without a Parliament, when [blank] the same time we would, almost all of us, govern America upon principles not [blank] justifiable?"

Very just. Only that the arbitrary government of a single [blank] is [blank] eligible, [blank] the arbitrary government of a body of men. A single [blank] may be [blank] of doing injustice; a body [blank] one [blank] other, [blank] strong enough.

It cannot apprehend assassination, and by dividing [] among them, it is so little apiece that no one minds it.

— " [] consistently with [] rights of sovereignty over them."

I am surprised, [] a writer, who, [] other respects, appears often very reasonable, should talk of *our sovereignty over the colonies*! As if every individual in England was a part of [] sovereignty over America! The [] is the sovereign of all.

The Americans think, [], while they can retain the right of disposing of their own money, they shall thereby [] their other rights. They have, therefore, [] yet disputed your other pretensions.

"That England [] undeniable right to consider America [] a part of her dominions is a fact, I presume, which can never [] questioned."

You do, indeed, *presume* too much. America [] part of the dominions of England, but of the *king's dominion*. England is a dominion itself, and [] no dominions.

"I will only observe [] present, that it was England, in some sense, which [] first gave [] being."

[] some sense! In what sense? They were not planted at her expense. As [] defence, all part of the king's dominion have mutually always contributed [] the defence one of the other. The man in America, who contributes sixpence towards an armament against the [] enemy, contributes [] much [] protection as if he lived in England.

They have always been ready [] contribute, but by voluntary grants according to their rights; [] has any Englishman yet had the effrontery [] deny this truth.

"If they are [] liberty to choose what sums [] raise, as well as the manner of raising them, [] is scarcely to be doubted, that their allowance will be found extremely short. And it is evident they may, upon [] footing, absolutely refuse to pay any taxes at all. And if so, it would [] much better for England, if it were consistent with her safety, [] disclaim [] further connexion with them, than to continue her protection to them wholly at her [] expense."

Why is [] to be doubted, that they will not grant what they ought to grant? No complaint [] yet made of their refusal or deficiency. He says, if they are not without reserve obliged to comply with [] requisitions of the ministry, they may absolutely refuse [] pay any [] at all. Let [] apply this to the British Parliament, [] the reasoning will equally prove, the Commons ought likewise to comply absolutely with the requisitions of [] ministry. Y^e I have [] lately the ministry demand four shillings in the pound, and []

Parliament grant but []. But Parliaments and provincial Assemblies may always be safely trusted with [] power of refusing or granting in part. [] will often demand too much. [] Assemblies, being acquainted properly with the occasion, will always grant what is necessary. As protection is, as I said before, mutual and equal in proportion to every man's property, the colonies have been drawn into all British wars, and have annoyed [] enemies [] Britain as much in proportion as any other subjects of the king, equal in numbers [] property. Therefore, this [] always balanced itself.

"It may [] be observed, that [] proceedings are not quite so rapid and precipitate as those of the Privy Council; so that, should it [] found unnecessary, they [] have [] petition or []. For [] privilege, the least which [] subject can enjoy, is not [] them."

Late experience has fully shown, that American petitions and remonstrances are little regarded in Britain. The privilege of petitioning has been [] to be wrested from them. The Assemblies uniting to petition has been called [] flagitious attempt in the ministers' letters; [] Assemblies as would persist in it have therefore been dissolved.

It is [] joke to talk thus to us, when [] know that Parliament, so far from solemnly canvassing our petitions, has refused [] receive or read them.

Our right of legislation over the Americans, unrepresented as they are, is the point in question. This right is asserted by most, doubted of by some and wholly disclaimed by a few."

I am one of those few; but am persuaded the time is not far distant, when the few will become the many; for, *Magna est veritas et prevalebit*.

"But, [] put [] in a stronger light, the question, I think, [] whether we have a general right of making slaves, or not."

A very proper [] of the question.

"And the Americans [] be treated [] much equity, and [] tenderness, by [] Parliament of Great Britain, as by their [] Assemblies. This, [] least, is possible, though perhaps [] very probable."

How [] Americans believe this, when we [] almost half the nation paying but one shilling and sixpence in the pound, while others pay full four shillings; [] there [] virtue and honesty enough in Parliament to rectify this iniquity? [] can we suppose they will [] just [] us at such a distance, when they are [] just [] one another? It is not, indeed, [] author [] very probable. The unequal representa-

tion, too, that prevails in this kingdom, they are so far from having virtue enough to attempt a remedy, that they make use of it as an argument why we should have no representation at all.

"To the equity of this measure [our representation in Parliament] the Americans themselves, I presume, could have nothing fairly to object."

Provided they had an equitable number of representatives allowed them.

"As those, indeed, which we only choose a Parliament, they may, perhaps, by be considerably lessened, though wholly removed."

Let members continue superadded by from America.

"But the king any time he disposed to Parliament, and convene a new one, as done, only at a weeks' notice, this, upon footing, could be effected."

By above it might.

"The method, however, of examining and deciding contested elections, when necessary, must undoubtedly with respect to America be set, in a great measure, upon a different footing from that at present practised in this kingdom."

Let the members be chosen by the American Assemblies, and disputed elections settled there, if any; but there would be none.

"It is not in the least, at this time, probable, that an American representation will ever be convened in England."

I think too; where neither side approve a match, it is not likely to be made.

"They will be almost wholly excluded the benefit of private acts, by reason of the immoderate expense."

They may make them at home. The expense of private in England is shamefully great.

"The repairing of highways, making rivers navigable, and cutting canals, with a variety of other things of the like kind, wherein recourse must be had to Parliament, and yet the expense be supplied chiefly, if not wholly, by private persons."

All this may be done by their own laws at home.

"This mode of compromise may as well be waived, as it cannot be effected, it is evident, without immense trouble."

Very little.

"And if they should be divided in their sentiments upon it, and uncertain what measures to adopt, and follow, it cannot be matter of just wonder or surprise."

Then leave it as is. It was very well, you attempted alterations and novelties.

"In respect to the article of levying taxes, it should be deemed only a grace, to be resumed at pleasure."

Your humble servant! You want you for nothing. Keep up your claim, and make the most of it.

"To be placed upon a level with the rest of the subjects of the British crown, is the utmost the colonies can challenge!"

No. They may challenge promised them by to encourage them to settle there. They have performed their part of the contract, have a right to expect a performance of the other part. They have, by the risks and expenses they have incurred, additional merit, and are therefore to be considered as above the level of other subjects.

"We are not, however, in our safety were actually absolutely required it."

I am quite sick of sovereignty. Your safety is only endangered by quarrelling with the colonies; not by leaving them to the free enjoyment of their liberties.

"They, who first migrated from England to settle in America, well knew, I am sure, they were still to continue the subjects of the same government."

They well knew the contrary. They would never have gone, if that had been the case. They fled from your government, which oppressed them. If they carried your government with them, and of course your laws, they had better have stayed and endured the oppression at home, and not have added to it all the hardships of making a new settlement. They carried your laws; but, they carried your government and laws, they would now have been subject to spiritual courts, tithes, church of parliament, game acts, &c. &c., which they were not, were since their being of the realm.

"They knew they were not to be independent."

They were depend on the king only.

"For no one, I imagine, would doubt, if their charters granted them an inconsistent power, but that they might be justly cancelled; as no government can be supposed to alienate its own existence."

Every government is supposed to be composed of men when it grants charters, shall not be pleaded insanity. If you break the charters, or violate them, you dissolve all ties between us.

"However, a right of sovereignty in this case

we may undeniably claim and vindicate; though ■ might safely ■ them independency."

You may claim it; but you have ■ had, nor, I trust, ever will have it. You, ■ is, ■ people of England, cannot grant ■ Americans independency of the king. It ■ never be, but ■ his consent and theirs.

—"Preserving our sovereignty ■ them, although ■ of some portion of their ■ prerogatives. They partly consist of our own plantations, and partly of the conquests we have made from a ■ in whose hands it would have ■ dangerous for ■ have continued."

Our sovereignty! Our sovereignty for ever. Of theirs, not ■ plantations. The conquests may be yours partly; but they are partly conquests ■ belonging to the colonies, who joined their forces with yours in equal proportion.

"Our very being, therefore, at least as a free people, depends upon ■ retention of them."

Take care, then, how you ■ them.

"They are now treated ■ children. Their complaints ■ heard, and grievances redressed. But then they would be treated rather as slaves, having ■ swords of their masters perpetually held at their throats, if they should presume to offer half the indignities to ■ officers of the French crown, ■ have often with impunity done ■ those of the British."

The direct contrary is true; they are ■ redressed; they ■ refused to be heard. Fresh oppressions and insults ■ continually added. English swords are now ■ throats. Every step is taking to convince us, ■ there is no difference in government.

"Nay, they have Assemblies of their own to redress their grievances."

It is well they have.

"And if that should be done, what marks of sovereignty will they allow us to enjoy? What sort of claim will they indulge us with? Only, I suppose, a mere titular ■. And if so, would they ■ expect, that we should still protect them with our forces by sea and land? Or will they themselves maintain an army and navy sufficient ■ that purpose? This they certainly at present are not able to do, if they were ■ by ■ wings of Great Britain."

What would you have? Would you, the people of England, be subjects and kings at the ■ time! Don't be under any apprehensions for them. They will ■ and friends somewhere; and it will be worth no one's while to make them enemies, or to attack ■ poor ■ people, ■ numerous, and ■ well armed.

"Nor is there any reason ■ apprehend, that they should be ■ all formidable ■ England; ■

the number [of American representatives in Parliament] might ■ properly limited, as those ■ Scotland were ■ the union."

A proper limitation can only be this, that they shall from time ■ time ■ such a number of additional members, as ■ proportioned ■ increasing share ■ and numbers of people.

"An ■ estimate ■ scarcely ■ of what expense ■ protection ■ Great Britain."

The protection ■ mutual. They are always in time of war ■ much expense as would be necessary to protect themselves; first, by the troops and armed ■ps they raise and equip; secondly, by ■ higher price they pay ■ commodities, when drawn into ■ by English European quarrels; thirdly, by obstructions ■ the vent of their produce by general embargo.

"They are justly chargeable ■ a ■ portion of the civil list; for this most indubitably constitutes a part of government. How this article at present is managed in England, ■ now my business to inquire."

I will tell you how it is managed. The colonies maintain their governors, who are the king's representatives; and the king receives a quitrent from the lands in ■ of the colonies.

"In many parts they ■ little, perhaps, or nothing at ■ inferior ■ respect of their conveniences ■ the mother country."

As these differences cannot be known in Parliament here, how can you proportion and vary your ■ of America ■ as to make them equal and fair? It would be undertaking what you are not qualified for, as well as doing what you have no right to do.

"Yet it must be granted, that they know best the state of their ■ funds, and what tax ■ they ■ to pay."

And yet you would be meddling.

"It is very certain, that England is entitled to a great deal of gratitude from her colonies."

The English ■ eternally harping on this string, the great obligation ■ colonies are under for protection from the French. I have shown, already, that the defence was mutual. Every ■ in England, and every man's estate, have been ■ from the French; but is it sense to tell any particular ■ "The nation ■ incurred a debt of ■ hundred and forty-eight millions ■ protect you and your estate; and therefore you owe a great deal of gratitude to the nation?" ■ will say, and justly, "I paid my proportion, and I ■ under no obligation."

The colonies, as I have shown ■ preceding notes, have always paid more in various ways, and besides extending your trade

sometimes (from which you exclude the colonies), and for whims about the [redacted] of power, and for [redacted] sake of continental connexions in which they [redacted] separately, unconcerned. On [redacted] other hand, they have, from their [redacted] settlement, had wars in America, in [redacted] they [redacted] engaged you. The French have [redacted] been the enemies, [redacted] on your account.

"That [redacted] war was chiefly kindled and carried on, on your account, can scarcely be denied."

It [redacted] denied.

—"By the steps they [redacted] [redacted] off [redacted] sovereignty."

Our sovereignty again! This writer, like the Genoese queens of Corsica, deems himself a sprig of royalty!

"For [redacted] as they are no longer dependent upon England, they may [redacted] assured they will immediately become dependent upon France."

We [redacted] assured of the [redacted] contrary. Weak states, that are poor, [redacted] as safe as great ones that are rich. They are [redacted] objects of envy. The trade, that may be carried on with them, makes them objects of friendship. The smallest states may have great allies; and [redacted] mutual jealousies of great nations contribute to their security.

—"And whatever [redacted] there might exist to dispose them in our favour in preference [redacted] French; yet, how far these would operate, no one can pretend to say."

Then be careful not to [redacted] them ill. It is a better [redacted] for using them kindly. That alone can retain their friendship. Your sovereignty will be of no [redacted] if the people hate you. Keeping them in obedience will cost you [redacted] than your profits from them amount to.

"It is not, indeed, for their jealousy of their rights and liberties, but for their riotous and [redacted] manner of asserting them."

Do you Englishmen then pretend to censure the colonies for riots? Look at home! I have [redacted] within a year, riots in the country about corn; riots about elections; riots about work-houses; riots of colliers; riots of weavers; riots of coal-heavers; riots of sawyers; riots of sailors; riots of Wilkesites; riots of government chairmen; riots of smugglers, in which custom-house officers and excisemen have been murdered, the king's armed vessels and troops fired at, &c. In America, if one mob rises, and breaks a few windows, or tars and feathers a single rascally informer, it [redacted] called *rebellion*; troops and [redacted] be sent, and military execution [redacted] of, [redacted] dearest thing in the world. Here, indeed, one would think riots part of the [redacted] government.

"And if she had [redacted] thought proper to centre almost all her care, as she has done, upon making the [redacted] peace, in procuring them a safe establishment, and [redacted] sacrifice to it, in a manner, every other object, [redacted] might, at least, expect from them a more decent and [redacted] our."

In the last war America kept [redacted] twenty-five thousand [redacted] at her [redacted] cost for five years, and spent many millions. [redacted] troops were in [redacted] battles, all service. Thousands of her youth fell a sacrifice. The crown gained an immense [redacted] of territory, and a great number of new subjects. Britain gained a [redacted] market for her manufactures, [redacted] recovered [redacted] the old [redacted] the Indiana, which the [redacted] had interrupted and annihilated. But [redacted] did the Americans gain, except that *safe establishment*, which they [redacted] now so taunted with? Lands [redacted] divided among none of them. [redacted] very fishery, which they sought to obtain, they [redacted] now restrained in. The plunder of the Havana was not for [redacted] And this very *safe establishment* [redacted] they might [redacted] well have had by treaty with the French. their neighbours, who would probably have been easily made and continued their friends, if it had not been for their connexion with Britain.

"And it [redacted] happens, that any one fares [redacted] for his insolence."

Then don't be insolent with your power.

"For should matters on [redacted] sides, as I hope they never will, be carried to extremities, I cannot [redacted] take upon me to say but England may yet produce both a Ministry and Parliament, that would rather share them [redacted] more with the French, than totally relinquish her present pretensions."

We have been often threatened with this wise [redacted] of returning Canada to France. [redacted] it when you please. [redacted] the French power, which [redacted] five years subduing with twenty-five thousand regulars, and twenty-five thousand of us to help you, continued [redacted] backs ready to support and assist us, whenever [redacted] might think proper to resist your oppressions, you would [redacted] have thought of a Stamp Act for us; you would not [redacted] dared [redacted] you have done. [redacted] be [redacted] politic [redacted] have enemies [redacted] hand (as the notion is) [redacted] keep your subjects in obedience, then give part of Ireland [redacted] the French to plant. Plant another French colony in [redacted] Highlands, to keep rebellious Scotland in order. Plant another on Tower Hill, to restrain your own mobs. There [redacted] [redacted] a notion more ridiculous. Don't you see the advantage you may have, if you preserve our connexion? The fifty thousand men and the fleet employed in America, during the last war [redacted] now [redacted]

much strength liberty to be employed elsewhere.

"The legislative power of every kingdom is crapse should in supreme assembly."

Distinguish here what may be convenient from fact. the union it thought convenient, long wished for, two kingdoms should join in one parliament. But, that union formed, fact was that their parliaments were distinct, and British Parliament would not make laws Scotland. The fact now subsists in America. The parliaments are distinct, but the British Parliament has taken advantage of our minority, and usurped powers belonging to it.

"It would be amiss, perhaps, to ask them what bounds they would content to fix to their claims and demands upon us, as hitherto they seem to be at a loss where to stop."

They only desire, that you would leave them where you found them; repeal all your taxing laws, and return to requisitions where you would have aids from them.

"I must freely own, that whatever opinion I may have of their right, I certainly have quite as favourable one of their conduct, which often is consistent nor prudent."

They think the of yours.

"If they are really willing we should exercise any acts of sovereignty them at all, the imposition they have so riotously resented might improperly, perhaps, have been allowed betwixt quarters."

Leave the king, who alone is the sovereign, to exercise his acts of sovereignty in appointing their governors, and in approving or disapproving their laws. But do you leave it to their choice to trade elsewhere for commodities; to go to another shop? No! you they shall buy of you, or nobody.

"Nor should more custom, nor any charter or law in being, be allowed any great weight in the decision of point." ♦

The charters are sacred. Violate them, and then the present bond of union (the kingly power us) will be broken.

"The Americans same rights, privileges, exemptions, are allowed the Irish, because of similarity, if identity, of their connexions us."

Surely the Americans deserve a little more. They never put you the trouble and expense of conquering them done three times over. They never in rebellion. I speak now of the tive Irish. The English families settled there lost no rights by their merit in quering that country.

"But if any distinction were be made, most certainly, of nations, Americans are entitled any lenity on that score."

I wonder much this "certainty."

"The terms she may not think safe and proper to grant the Irish, she may judge fall as dangerous and imprudent to grant the Americans."

It is very imprudent to deprive America of any of her privileges. If her commerce and friendship are of any importance to you, they are to be had no other terms, than leaving her in the full enjoyment of her rights.

"Long before could send among them any considerable number of forces, they might do a great deal of mischief, if not ally overturn all order and government."

They will take preserve order and government for their sakes.

"Several other reasons might be offered, why the same measures, in regard to both nations, might not be altogether alike convenient advisable."

Where you cannot so conveniently force, there you should endeavour to secure affection.

OBSERVATIONS

PASSAGES IN A PAMPHLET,

‘THE [REDACTED] CONSTITUTIONAL MEANS FOR PUTTING AN [REDACTED] TO THE [REDACTED] BETWEEN GREAT [REDACTED] AND THE [REDACTED] COLONIES.—LONDON, 1763.’

“EVERY British subject [REDACTED] acknowledge, that the directive influence of the British state remains with the British legislature, who are the only proper judges of what concerns the general welfare of the whole empire.”

The [REDACTED] is only the island of Great Britain; the [REDACTED] legislature are undoubtedly [REDACTED] only proper judges of what concerns [REDACTED] welfare of that state; [REDACTED] legislature [REDACTED] the proper judges of what concerns the Irish state, and the American legislatures of what concerns the American states respectively. By “the whole empire” does this writer mean all the king’s dominions? If so, the British Parliaments should also govern [REDACTED] isles of Jersey and Guernsey, [REDACTED] Hanover; but this is not so.

“But the land tax, which I have proposed, is in its very nature unoppressive, and is equally well suited [REDACTED] the poorest as to the richest province [REDACTED] [REDACTED] empire.”

This writer seems ignorant, that every colony [REDACTED] own civil and military establishment to provide for; new roads and bridges [REDACTED] make; churches and all public edifices to erect; [REDACTED] would be separately [REDACTED] them, moreover, with a tax on lands equal to what is paid in Britain?

“The colonists must possess a luxurious abundance to be able to double their inhabitants in so [REDACTED] a [REDACTED].”

How does this appear? [REDACTED] not a mere competence sufficient for this purpose? [REDACTED] America will consent to pay thus its proportion of [REDACTED] taxes, [REDACTED] Britain pay [REDACTED] of the whole all the American taxes? Or is America to pay both?

“The produce of the planters purchases for [REDACTED] others buy with gold and silver; but even several of the colonists of the rank of good livers have often been seen to pay the price of a negro with gold. As instances of Virginian luxury, I have been assured, that there are few families there without some plate; and that

at some entertainments the attendants have [REDACTED] peared almost as numerous as the guests.”

Was [REDACTED] the gold first purchased by the produce of his land, obtained by [REDACTED] labour? Does gold drop from the clouds in Virginia into the laps of the indolent? Their very purchasing plate [REDACTED] other [REDACTED] from England is one means of disabling them [REDACTED] paying taxes to England. Would you have it both in meal and malt? [REDACTED] has been a great folly in the Americans [REDACTED] entertain English gentlemen with a splendid hospitality ill suited to their circumstances; by which they excited no other grateful [REDACTED] ments in their guests, than that of a desire to tax the landlord.

“It cannot be deemed exorbitant considering [REDACTED] traffic with the French sugar-islands, as well as with our own; and this will [REDACTED] of their importations [REDACTED] [REDACTED].”

This is arguing the riches of a people from their extravagance; the very thing that keeps them poor.

“The inhabitants of Great Britain pay above [REDACTED] sterling every year, including turnpikes and the poor’s rates, two articles which the colonies are exempt from.”

A turnpike tax is no burthen, as the turnpike gives more benefit than it takes. And ought the rich in Britain, who have made such numbers of poor by engrossing all the [REDACTED] divisions of land, and who keep the labourers and working people poor by limiting their wages,—ought those gentry to complain of the burden of maintaining the poor that have worked for them at unreasonably low rates all their lives? As well might the planter complain of [REDACTED] being obliged to maintain his poor negroes, when they grow old, or sick, or lame, [REDACTED] unable to provide for themselves.

“For though all pay by the same law, yet none can be required to pay beyond his ability;

and the sum from whence the tax is raised, in the colonies that are least inhabited, just as able to bear the burden imposed, as in the most populous country of Great Britain."

The colonies are almost always considered by these ignorant, flimsy writers, as unwilling to contribute to the general exigencies of the state; which is not true. They are always willing, but will have the granting of their own money themselves;—in which they are right for various reasons.

"They would be content to take land from us gratuitously."

What land have they ever taken from you? The lands they belong to the crown, but to the Indians, of whom the colonists either purchased their own expense, or conquered them without assistance from Britain. The engagement to settle the American lands, and the expense of settlement, are more than equivalent for what was of no value to Britain without a first settlement.

"The rental of the lands in Great Britain and Ireland amounts to about twenty-two millions; but the rental of the same extent of lands in America is not probably one million sterling."

What signifies extent of unsettled lands, that produce nothing?

"I beg to know if the returns of any traffic on earth ever produced ~~any~~ per cent. on the returns of agriculture on a fertile soil and favourable climate."

How little this politician knows of agriculture! Is there any country where ten bushels of grain are generally got in for one sown? And are all the charges and advances for labour to be nothing? No farmer of America in fact makes five per cent. of his money. His profit is only being paid for his own labour, and that of his children. The opulence of one English or Dutch merchant would make the opulence of a hundred American farmers.

"It may, I think, be safely concluded, that the riches of the colonists would not increase so fast, were the inhabitants to leave off embarking their settlements and plantations, and run eagerly upon manufactures."

There is no necessity of leaving their plantations; they can manufacture in their families at spare time. Depend upon it, the Americans are not so impolitic as to neglect settlements for unprofitable manufactures; but some manufactures may be more advantageous to some persons than the cultivation of land, and these will prosecute such manufactures notwithstanding our oratory.

